

10/736,004

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|---|------------------|---------|------------------|
| L1 | 9 | (methamphetamine and amphetamine and immunogenic and carrier and label and antibod\$3).clm. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/07/25 15:07 |
| L2 | 9 | (methamphetamine and amphetamine and immunogenic and carrier and label and antibod\$3).clm. | US-PGPUB; USPAT | OR | OFF | 2006/07/25 15:04 |
| L3 | 3 | (zheng near1 feng or hsiou\$1 near1 liu or Yali near1 yang) and (amphetamine or methamphetamine or antactogen\$1) | US-PGPUB; USPAT | OR | OFF | 2006/07/25 15:07 |
| L4 | 3 | (zheng near1 feng or hsiou\$1 near1 liu or Yali near1 yang) and (amphetamine or methamphetamine or antactogen\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/07/25 15:07 |
| L5 | 150 | (methamphetamine or amphetamine or antactogen\$1) same (immunogen\$2 or label or tracer) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/07/25 15:09 |
| L6 | 129 | I5 and antibod\$3 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/07/25 15:09 |

10/736,004

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| NEWS 7 MAY 19 | Derwent World Patents Index to be reloaded and enhanced |
| NEWS 8 MAY 30 | IPC 8 Rolled-up Core codes added to CA/CAPplus and USPATFULL/USPAT2 |
| NEWS 9 MAY 30 | The F-Term thesaurus is now available in CA/CAPplus |
| NEWS 10 JUN 02 | The first reclassification of IPC codes now complete in INPADOC |
| NEWS 11 JUN 26 | TULSA/TULSA2 reloaded and enhanced with new search and and display fields |
| NEWS 12 JUN 28 | Price changes in full-text patent databases EPFULL and PCTFULL |
| NEWS 13 JUL 11 | CHEMSAFE reloaded and enhanced |
| NEWS 14 JUL 14 | FSTA enhanced with Japanese patents |
| NEWS 15 JUL 19 | Coverage of Research Disclosure reinstated in DWPI |
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FILE 'HOME' ENTERED AT 14:22:30 ON 25 JUL 2006

=>

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=> FILE REGISTRY

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

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STRUCTURE FILE UPDATES: 23 JUL 2006 HIGHEST RN 895579-80-3
DICTIONARY FILE UPDATES: 23 JUL 2006 HIGHEST RN 895579-80-3

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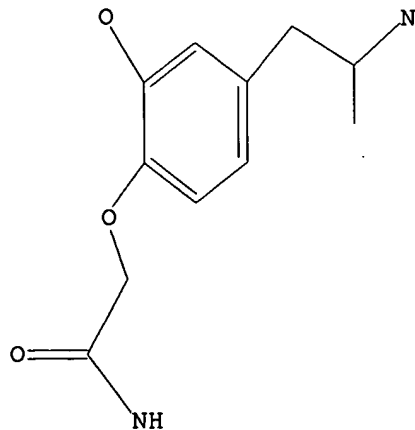
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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 14:23:22 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 26 TO ITERATE

100.0% PROCESSED 26 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 215 TO 825
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 sss full

FULL SEARCH INITIATED 14:23:29 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 539 TO ITERATE

100.0% PROCESSED 539 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=>

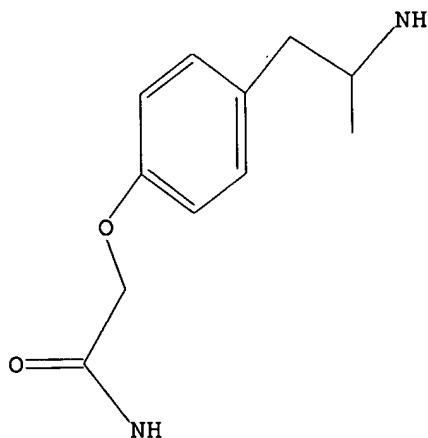
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L4 STRUCTURE UPLOADED

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L4 HAS NO ANSWERS

L4 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 14

SAMPLE SEARCH INITIATED 14:25:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 191 TO ITERATE

100.0% PROCESSED 191 ITERATIONS 18 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2991 TO 4649
PROJECTED ANSWERS: 106 TO 614

L5 18 SEA SSS SAM L4

=>

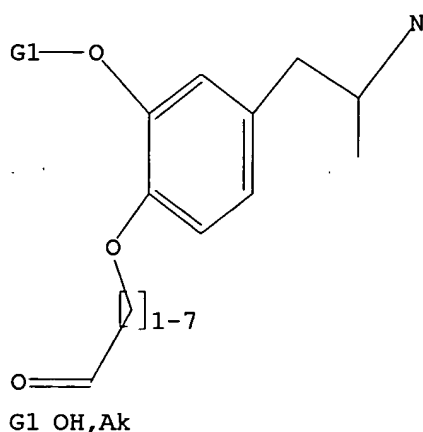
Uploading C:\Program Files\Stnexp\Queries\10736004b.str

L6 STRUCTURE UPLOADED

=> d 16

L6 HAS NO ANSWERS

L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 16

SAMPLE SEARCH INITIATED 14:31:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 60 TO ITERATE

100.0% PROCESSED 60 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 736 TO 1664
PROJECTED ANSWERS: 2 TO 124

L7 2 SEA SSS SAM L6

=> s 16 sss full

FULL SEARCH INITIATED 14:31:34 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1301 TO ITERATE

100.0% PROCESSED 1301 ITERATIONS 35 ANSWERS
SEARCH TIME: 00.00.01

L8 35 SEA SSS FUL L6

| | | |
|----------------------|------------|---------|
| => FIL CAPLUS | | |
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 339.60 | 339.81 |

FILE 'CAPLUS' ENTERED AT 14:31:48 ON 25 JUL 2006
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 FILE LAST UPDATED: 24 Jul 2006 (20060724/ED)

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<http://www.cas.org/infopolicy.html>

=> s 18
 L9

20 L8

=> s 19 and (carrier or label or BSA or ovalbumin or KHL)

269716 CARRIER
 151068 CARRIERS
 353344 CARRIER
 (CARRIER OR CARRIERS)
 61289 LABEL
 21123 LABELS
 73611 LABEL
 (LABEL OR LABELS)
 15672 BSA
 77 BSAS
 15713 BSA
 (BSA OR BSAS)
 14658 OVALBUMIN
 5697 OVALBUMINS
 16965 OVALBUMIN
 (OVALBUMIN OR OVALBUMINS)
 250 KHL
 1 KHLS
 251 KHL
 (KHL OR KHLS)

L10 2 L9 AND (CARRIER OR LABEL OR BSA OR OVALBUMIN OR KHL)

=> d l10 ibib abs hitstr tot

L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:525102 CAPLUS
 DOCUMENT NUMBER: 143:21369
 TITLE: Assay for entactogens
 INVENTOR(S): Zheng, Yi Feng; Liu, Hshiou-Ting

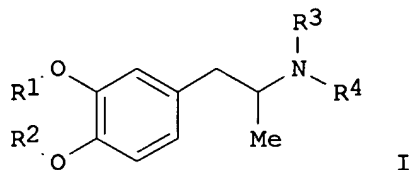
PATENT ASSIGNEE(S): Dade Behring Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 44 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2005130244 | A1 | 20050616 | US 2003-736005 | 20031215 |
| US 6991911 | B2 | 20060131 | | |
| WO 2005058864 | A1 | 20050630 | WO 2004-US41618 | 20041213 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-736005 A 20031215
 OTHER SOURCE(S): MARPAT 143:21369
 GI



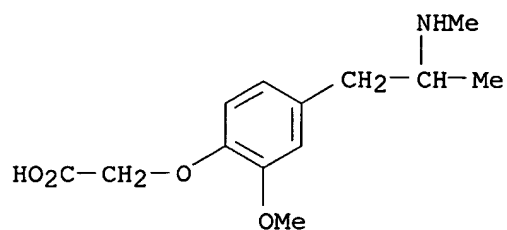
AB Methods, compns. and kits are disclosed. The methods are directed to determining the presence of entactogen analytes such as, for example, 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxy-ethylamphetamine (MDEA) and 4-hydroxy-3-methoxy-methamphetamine (HMMA). The method comprises providing in combination in a medium (i) a sample suspected of containing the compound and (ii) an antibody raised against a compound of Formula I that comprises a protein. The medium is examined for the presence a complex comprising the compound and the antibody where the presence of such as complex indicates the presence of the compound in the sample. In one aspect of the above embodiment, the combination further comprises a label conjugate of the compound Formula I.

IT 853062-50-7DP, protein conjugates
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (method for detection of entactogens using antibodies and amphetamine analog-enzyme conjugates)

RN 853062-50-7 CAPLUS.

CN Acetic acid, [2-methoxy-4-[2-(methylamino)propyl]phenoxy]- (9CI) (CA INDEX NAME)

depending application



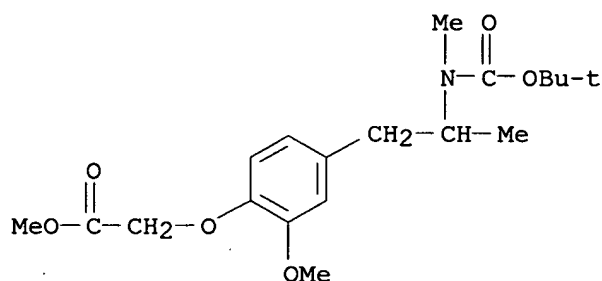
IT 853062-41-6P 853062-44-9P 853062-46-1P
853062-48-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(method for detection of entactogens using antibodies and amphetamine analog-enzyme conjugates)

RN 853062-41-6 CAPLUS

CN Acetic acid, [4-[2-[[[(1,1-dimethylethoxy)carbonyl]methylamino]propyl]-2-methoxyphenoxy]-, methyl ester (9CI) (CA INDEX NAME)



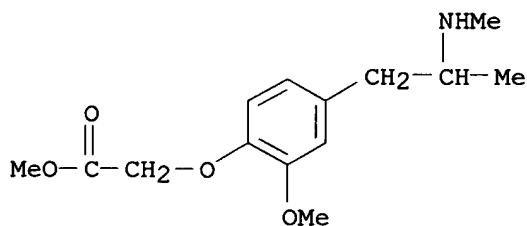
RN 853062-44-9 CAPLUS

CN Acetic acid, [2-methoxy-4-[2-(methylamino)propyl]phenoxy]-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 853062-43-8

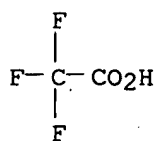
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CM 2

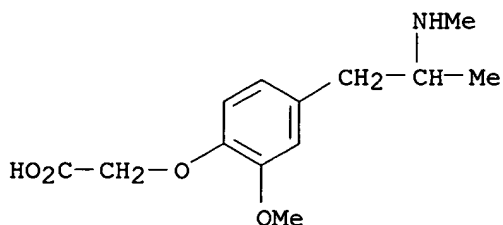
CRN 76-05-1

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RN 853062-46-1 CAPLUS

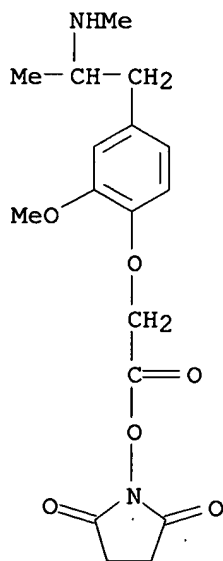
CN Acetic acid, [2-methoxy-4-[2-(methylamino)propyl]phenoxy]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 853062-48-3 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[[[2-methoxy-4-[2-(methylamino)propyl]phenoxy]acetyl]oxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

87

THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 2 · CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:525101 CAPLUS

DOCUMENT NUMBER: 143:21368

TITLE: Assay for entactogens

INVENTOR(S): Zheng, Yi Feng; Liu, Hshiou-Ting; Yang, Yali

PATENT ASSIGNEE(S): USA

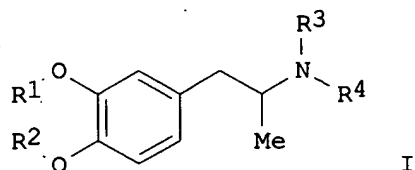
SOURCE: U.S. Pat. Appl. Publ., 39 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2005130243 | A1 | 20050616 | US 2003-736004 | 20031215 |
| WO 2005058865 | A2 | 20050630 | WO 2004-US41622 | 20041213 |
| WO 2005058865 | A3 | 20050804 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-736004 A 20031215
 OTHER SOURCE(S): MARPAT 143:21368
 GI

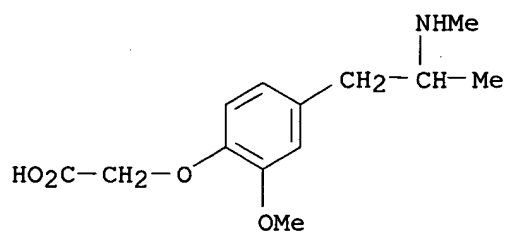


AB Methods, compns. and kits are disclosed. The methods are directed to determining the presence of entactogen analytes such as, for example, 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxymethamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxymethamphetamine (HMMA). The method comprises providing in combination in a medium (i) a sample suspected of containing the compound and (ii) an antibody raised against a compound of Formula I that comprises a protein. The medium is examined for the presence a complex comprising the compound and the antibody where the presence of such as complex indicates the presence of the compound in the sample. In one aspect of the above embodiment, the combination further comprises a label conjugate of the compound Formula I.

IT 853062-50-7DP, protein conjugates
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (method for detection of entactogens using antibodies and amphetamine analog-enzyme conjugates)

RN 853062-50-7 CAPLUS

CN Acetic acid, [2-methoxy-4-[2-(methylamino)propyl]phenoxy]- (9CI) (CA INDEX NAME)



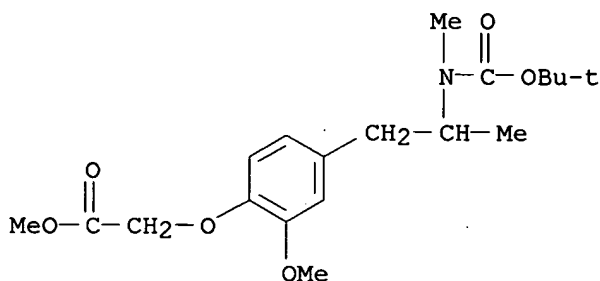
IT 853062-41-6P 853062-44-9P 853062-46-1P
853062-48-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(method for detection of entactogens using antibodies and amphetamine analog-enzyme conjugates)

RN 853062-41-6 CAPLUS

CN Acetic acid, [4-[2-[[[1,1-dimethylethoxy)carbonyl]methylamino]propyl]-2-methoxyphenoxy]-, methyl ester (9CI) (CA INDEX NAME)



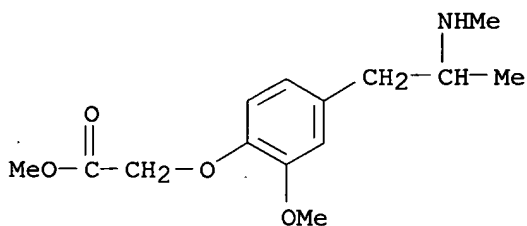
RN 853062-44-9 CAPLUS

CN Acetic acid, [2-methoxy-4-[2-(methylamino)propyl]phenoxy]-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 853062-43-8

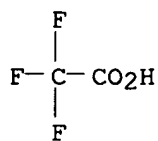
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CM 2

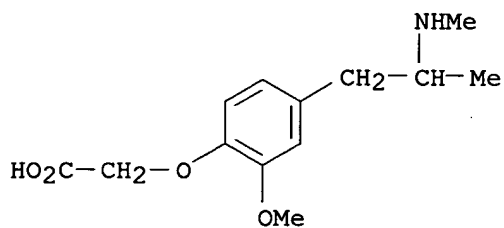
CRN 76-05-1

CMF C2 H F3 O2



RN 853062-46-1 CAPLUS

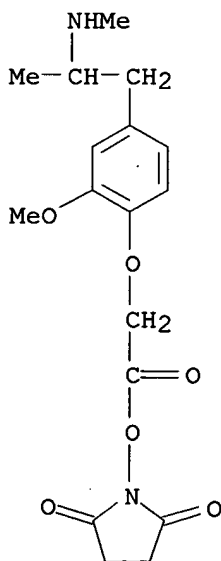
CN Acetic acid, [2-methoxy-4-[2-(methylamino)propyl]phenoxy]-, hydrochloride
(9CI) (CA INDEX NAME)



● HCl

RN 853062-48-3 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[[[2-methoxy-4-[2-(methylamino)propyl]phenoxy]acetyl]oxy]- (9CI) (CA INDEX NAME)



=> s 19 not 110

L11 18 L9 NOT L10

=> d 111 ibib abs hitstr tot

L11 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:569849 CAPLUS

DOCUMENT NUMBER: 141:89372
 TITLE: Preparation of tripeptides as inhibitors of the Yersinia phosphatase (YopH) enzyme
 INVENTOR(S): Burke, Terrence R.; Lee, Kyeong; Gao, Yang; Phan, Jason; Waugh, David S.
 PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
 SOURCE: U.S. Pat. Appl. Publ., 15 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2004138104 | A1 | 20040715 | US 2003-341607 | 20030114 |
| WO 2004065411 | A2 | 20040805 | WO 2004-US669 | 20040112 |
| WO 2004065411 | A3 | 20050127 | | |

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.: US 2003-341607 A 20030114

OTHER SOURCE(S): MARPAT 141:89372

AB Disclosed are tripeptides of formula P-A-B-C [A is an amino acid having a carboxyalkyl group, B is (un)substituted tyrosine or phenylalanine, C is a hydrophobic amino acid, and P is an amine protecting group (with provisos)] or their prodrugs for use in pharmaceutical compns. for treating an animal, e.g., a human, exposed to or infected by Yersinia pestis. The compds. find use as anti-bioterrorism agents. Tripeptides of the invention were prepared by the Fmoc-based solid-phase method. Fmoc-L-Glu-L-Tyr(CH₂CO₂H)-L-Leu-NH₂ showed IC₅₀ values 4.6 ± 2 and 2.8 ± 1.1 μM for inhibition of protein tyrosine phosphatase 1B (PTB1B) and YopH, resp.

IT 596814-15-2P

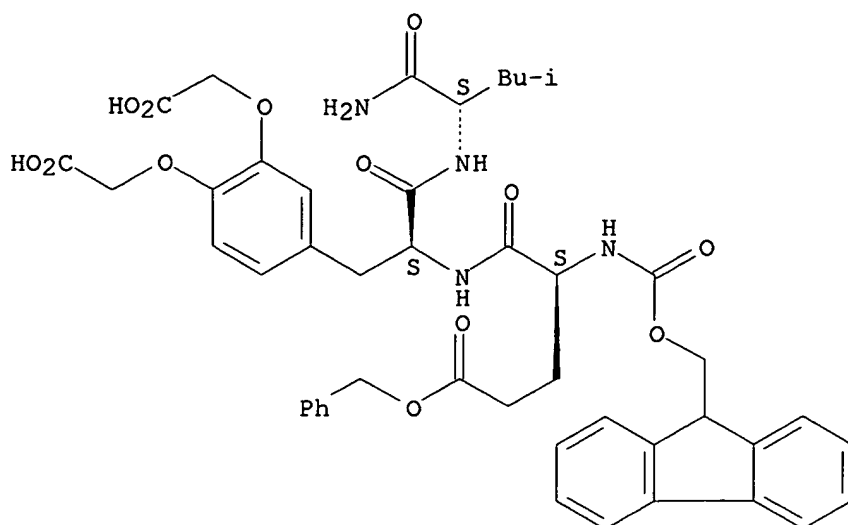
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tripeptides as inhibitors of Yersinia phosphatase (YopH) enzyme for use as anti-bioterrorism agents)

RN 596814-15-2 CAPLUS

CN L-Leucinamide, N-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-α-glutamyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-, 1-(phenylmethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:243068 CAPLUS

DOCUMENT NUMBER: 141:3192

TITLE: Phosphotyrosyl peptides and analogues as substrates and inhibitors of purple acid phosphatases

AUTHOR(S): Valizadeh, Mohsen; Schenk, Gerhard; Nash, Kevin; Oddie, Geoff W.; Guddat, Luke W.; Hume, David A.; de Jersey, John; Burke, Terrence R.; Hamilton, Susan

CORPORATE SOURCE: Department of Biochemistry, The University of Queensland, St. Lucia, 4072, Australia

SOURCE: Archives of Biochemistry and Biophysics (2004), 424(2), 154-162

CODEN: ABBIA4; ISSN: 0003-9861

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Purple acid phosphatases are metal-containing hydrolases. While their precise biol. role(s) is unknown, the mammalian enzyme has been linked in a variety of biol. circumstances (e.g., osteoporosis) with increased bone resorption. Inhibition of the human enzyme is a possible strategy for the treatment of bone-resorptive diseases such as osteoporosis. Previously, we determined the crystal structure of pig purple acid phosphatase to 1.55 Å and we showed that it is a good model for the human enzyme. Here, a study of the pH dependence of its kinetic parameters showed that the pig enzyme is most efficient at pH values similar to those encountered in the osteoclast resorptive space. Based on the observation that phosphotyrosine-containing peptides are good substrates for pig purple acid phosphatase, peptides containing a range of phosphotyrosine mimetics were synthesized. Kinetic anal. showed that they act as potent inhibitors of mammalian and plant purple acid phosphatases, with the best inhibitors exhibiting low micromolar inhibition consts. at pH 3-5. These compds. are thus the most potent organic inhibitors yet reported for the purple acid phosphatases.

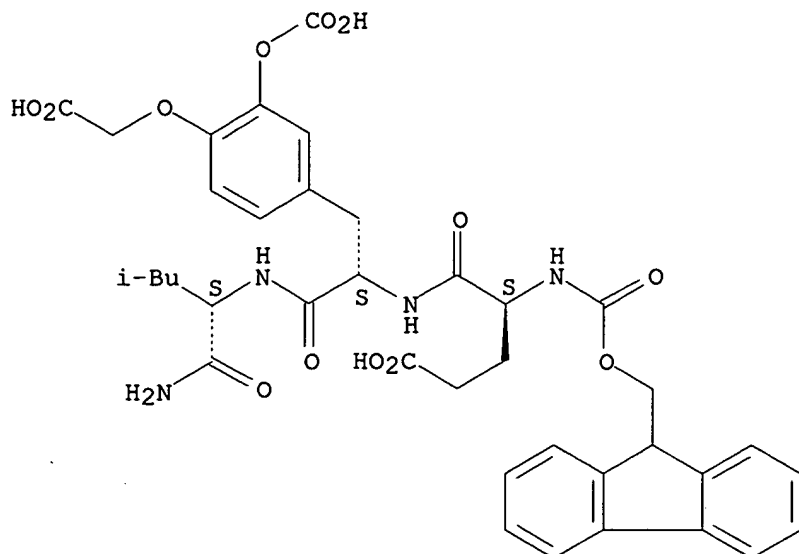
IT 697287-29-9

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor, kinetics; phosphotyrosyl peptides and analogs as substrates and inhibitors of plant and mammalian purple acid phosphatases)

RN 697287-29-9 CAPLUS

CN L-Leucinamide, N-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-α-glutamyl-O-(carboxymethyl)-3-(carboxyoxo)-L-tyrosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:209677 CAPLUS

DOCUMENT NUMBER: 140:417241

TITLE: Structure-based design of novel nonpeptide inhibitors of the Src SH2 domain: phosphotyrosine mimetics exploiting multifunctional group replacement chemistry

AUTHOR(S): Sundaramoorthi, Raji; Kawahata, Noriyuki; Yang, Michael G.; Shakespeare, William C.; Metcalf, Chester A., III; Wang, Yihan; Merry, Taylor; Eyermann, Charles J.; Bohacek, Regine S.; Narula, Surinder; Dalgarno, David C.; Sawyer, Tomi K.

CORPORATE SOURCE: ARIAD Pharmaceuticals, Cambridge, MA, 02139-4234, USA

SOURCE: Biopolymers (2003), 71(6), 717-729

CODEN: BIPMAA; ISSN: 0006-3525

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of novel nonpeptide inhibitors of the pp60c-Src (Src) SH2 domain is described that exploit multifunctional group replacement of the phenylphosphate moiety of phosphotyrosine (pTyr). Relative to an x-ray structure of citrate complexed to the pTyr binding site of the Src SH2 domain, these nonpeptide ligands illustrate the systematic replacement of the phosphate group by multiple nonhydrolyzable, mono- or dianionic functionalities. Specifically, several phenylalanine (Phe) analogs incorporating key 4' and 3' substituents were synthesized and incorporated into a bicyclic benzamide template previously reported. These pTyr mimetics included 4',3'-diphosphono-Phe (Dpp), 4',3'-dicarboxymethyloxy-Phe (Dcp), and 4'-phosphono-3'-carboxymethyloxy-Phe (Cmp). Noteworthy were nonpeptide inhibitors 8-11 that were 5- to 10-fold more potent than the cognate tetrapeptide ligand Ac-pTyr-Glu-Glu-Ile-NH₂ in binding to the Src SH2 domain.

IT 268741-58-8

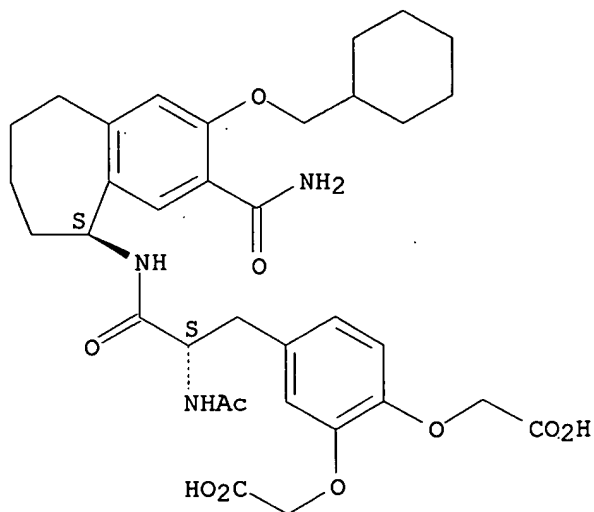
RL: PAC (Pharmacological activity); BIOL (Biological study)

(structure-based design of novel nonpeptide inhibitors of the Src SH2 domain)

RN 268741-58-8 CAPLUS

CN Acetic acid, 2,2'-[[4-[(2S)-2-(acetylamino)-3-[[(5S)-3-(aminocarbonyl)-2-(cyclohexylmethoxy)-6,7,8,9-tetrahydro-5H-benzocyclohepten-5-yl]amino]-3-oxopropyl]-1,2-phenylene]bis(oxy)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:521345 CAPLUS

DOCUMENT NUMBER: 139:239667

TITLE: Tripeptide inhibitors of Yersinia protein-tyrosine phosphatase

AUTHOR(S): Lee, Kyeong; Gao, Yang; Yao, Zhu-Jun; Phan, Jason; Wu, Li; Liang, Jiao; Waugh, David S.; Zhang, Zhong-Yin; Burke, Terrence R.

CORPORATE SOURCE: CCR, Laboratory of Medicinal Chemistry, NIH,, NCI-Frederick, Frederick, MD, 21702, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(15), 2577-2581
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The protein-tyrosine phosphatase (PTP) YopH' is a virulence factor of Yersinia pestis, the causative agent of plague. Potential use of Yersinia as a bioterrorism agent renders YopH inhibitors of therapeutic importance. Previously, we had examined the inhibitory potencies of a variety of phosphotyrosyl (pTyr) mimetics against the human PTP1B enzyme by displaying them in the EGFR-derived hexapeptide sequence, Ac-Asp-Ala-Asp-Glu-Xxx-Leu-amide', where Xxx=pTyr mimetic. The poor inhibitory potencies of certain of these pTyr mimetics were attributed to restricted orientation within the PTP1B catalytic pocket incurred by extensive peripheral interaction of the hexapeptide platform. Utilizing the smaller tripeptide platform, Fmoc-Glu-Xxx-Leu-amide' we demonstrate herein that several of the low affinity hexapeptide-expressed pTyr mimetics exhibit high PTP1B affinity within the context of the tripeptide platform. Of particular note, the mono-anionic 4-(carboxydifluoromethyl)Phe residue exhibits affinity equivalent to the di-anionic F2Pmp residue, which had previously been among the most potent PTP-binding motifs. Against YopH, it was found that all tripeptides having Glu residues with an unprotected

side chain carboxyl were inactive. Alternatively, in their Glu-OBn ester forms, several of the tripeptides exhibited good YopH affinity with the mono-anionic peptide, Fmoc-Glu(Obn)-Xxx-Leu-amide, where Xxx=4-(carboxymethyloxy)Phe providing an IC50 value of 2.8 μ M. One concern with such inhibitors is that they may potentially function by non-specific mechanisms. Studies with representative inhibitors, while failing to provide evidence of a non-specific promiscuous mode of inhibition, did indicate that non-classical inhibition may be involved.

IT 596814-15-2

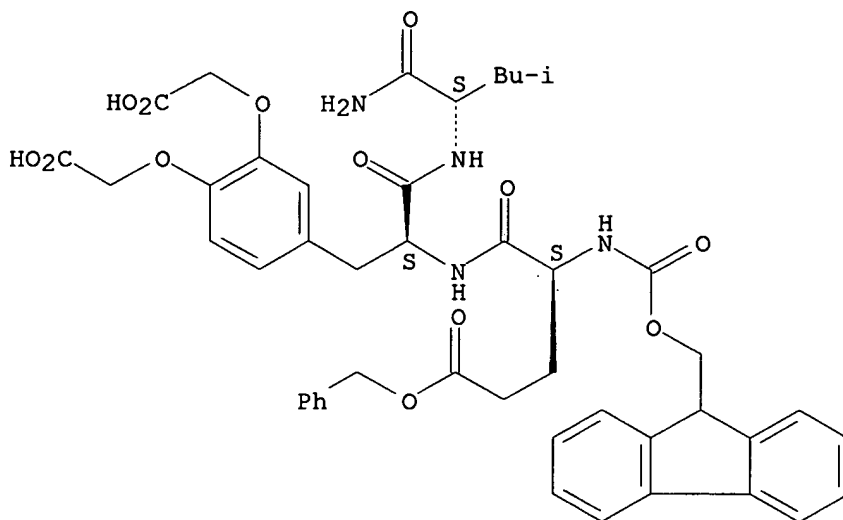
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(structure-activity relationship of tripeptide inhibitors of Yersinia protein-tyrosine phosphatase)

RN 596814-15-2 CAPLUS

CN L-Leucinamide, N-[(9H-fluoren-9-ylmethoxy)carbonyl]-L- α -glutamyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-, 1-(phenylmethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:484863 CAPLUS

DOCUMENT NUMBER: 137:47448

TITLE: Preparation of substituted phenylalaninol derivatives as protein tyrosine phosphatase inhibitors

INVENTOR(S): Larsen, Scott D.; May, Paul D.; Bleasdale, John E.; Liljebris, Charlotta; Schostarez, Heinrich Josef; Barf, Tjeerd; Nilsson, Marianne

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 144 pp., Cont.-in-part of U.S. Ser. No. 138,642. CODEN: USXXAM

DOCUMENT TYPE: Patent

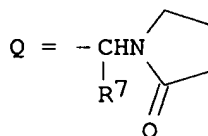
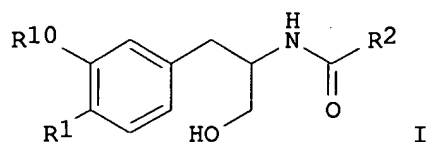
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|----------|
| US 6410585 | B1 | 20020625 | US 1999-265410 | 19990310 |

| | | | | |
|---|----|----------|------------------|-------------|
| US 6353023 | B1 | 20020305 | US 1998-138642 | 19980824 |
| CA 2366308 | AA | 20000914 | CA 2000-2366308 | 20000309 |
| WO 2000053583 | A1 | 20000914 | WO 2000-US6022 | 20000309 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1161421 | A1 | 20011212 | EP 2000-917793 | 20000309 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002539115 | T2 | 20021119 | JP 2000-604023 | 20000309 |
| AU 769511 | B2 | 20040129 | AU 2000-38711 | 20000309 |
| PRIORITY APPLN. INFO.: | | | US 1997-57730P | P 19970828 |
| | | | US 1998-138642 | A2 19980824 |
| | | | US 1999-265410 | A 19990310 |
| | | | WO 2000-US6022 | W 20000309 |
| OTHER SOURCE(S): | | | MARPAT 137:47448 | |
| GI | | | | |



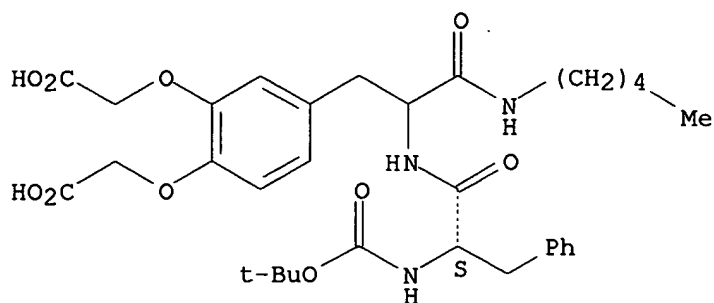
AB The invention comprises phenylalaninol derivs., e.g., I [R1 = OSO3H, OCH(CO2R5)2, OCH2CO2R5, OCH(CO2R5)CH2CO2R5, OC(CO2R5):CHCO2R5, CH2CH(CO2R5)2, CH:C(CO2R5)2, OCH2CONHOH, N(CH2CO2R5)2, OCHFCO2R5 (R5 = H, alkyl, alkylphenyl); R2 = CHR7NHXR6, group Q (R6 = alkyl, alkyl-CONH2, alkyl-NHCO2R5, etc.; R7 = H, any group given for R6); R10 = H, CO2R5, CONHOH, 5-tetrazolyl, F, OCH2CO2R5], or their pharmaceutically acceptable salts, as small mol. weight, non-peptidic inhibitors of protein tyrosine phosphatase 1 (PTP1) which are useful for the treatment and/or prevention of non-insulin dependent diabetes mellitus. Thus, 5-[(2S)-2-[[[(2S)-2-[(tert-butoxycarbonyl)amino]-3-phenylpropanoyl]amino]-3-hydroxypropyl]-2-(carboxymethoxy)benzoic acid (claimed compound) was prepared and showed 80% inhibition of protein tyrosine phosphatase 1B at a concentration of 10 μ M.

IT 221076-92-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

RN 221076-92-2 CAPLUS

CN Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-(carboxymethoxy)-O-(carboxymethyl)-N-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 221077-95-8P 221077-97-0P 221077-98-1P

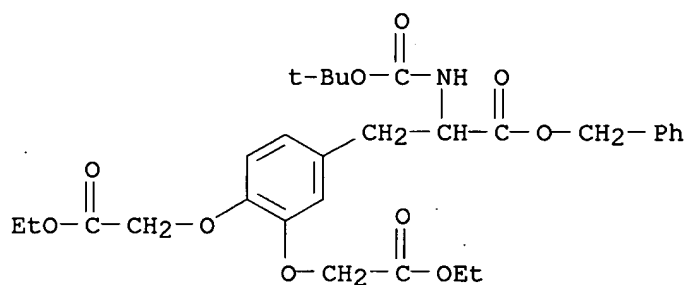
221077-99-2P 221078-02-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

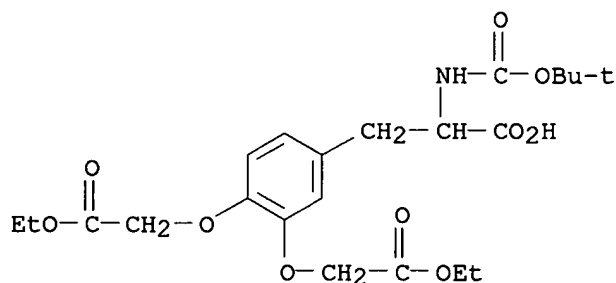
RN 221077-95-8 CAPLUS

CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-3-(2-ethoxy-2-oxoethoxy)-O-(2-ethoxy-2-oxoethyl)-, phenylmethyl ester (9CI) (CA INDEX NAME)



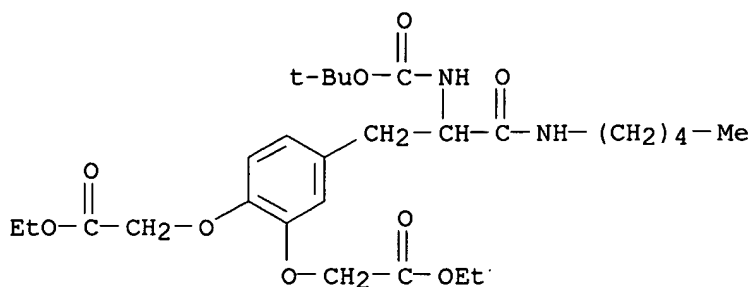
RN 221077-97-0 CAPLUS

CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-3-(2-ethoxy-2-oxoethoxy)-O-(2-ethoxy-2-oxoethyl)- (9CI) (CA INDEX NAME)



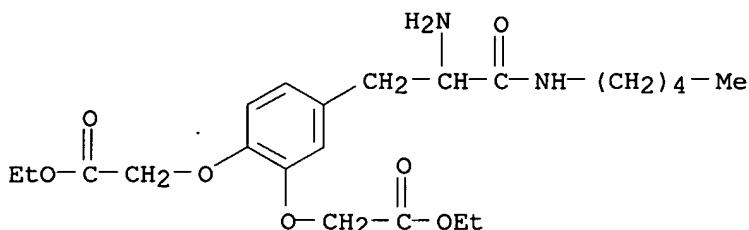
RN 221077-98-1 CAPLUS

CN Acetic acid, 2,2'-[[4-[2-[[[(1,1-dimethylethoxy)carbonyl]amino]-3-oxo-3-(pentylamino)propyl]-1,2-phenylene]bis(oxy)]bis-, diethyl ester (9CI) (CA INDEX NAME)



RN 221077-99-2 CAPLUS

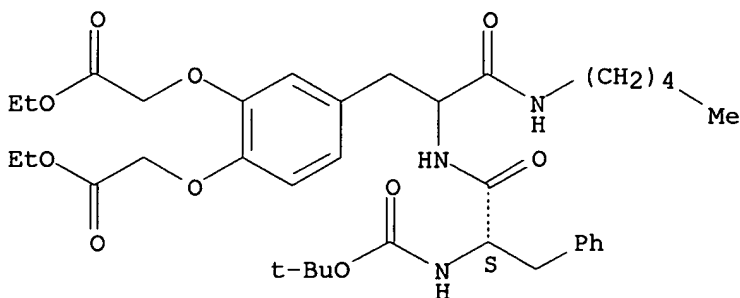
CN Acetic acid, 2,2'-[[4-[2-amino-3-oxo-3-(pentylamino)propyl]-1,2-phenylene]bis(oxy)]bis-, diethyl ester (9CI) (CA INDEX NAME)



RN 221078-02-0 CAPLUS

CN Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-(2-ethoxy-2-oxoethoxy)-O-(2-ethoxy-2-oxoethyl)-N-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:772172 CAPLUS

DOCUMENT NUMBER: 135:331675

TITLE: Preparation of acylated oligopeptide derivatives having cell signal inhibiting activity

INVENTOR(S): Burke, Terrence R., Jr.; Yao, Zhu-Jun; King, C. Richter

PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA

SOURCE: U.S., 42 pp.

DOCUMENT TYPE: Patent

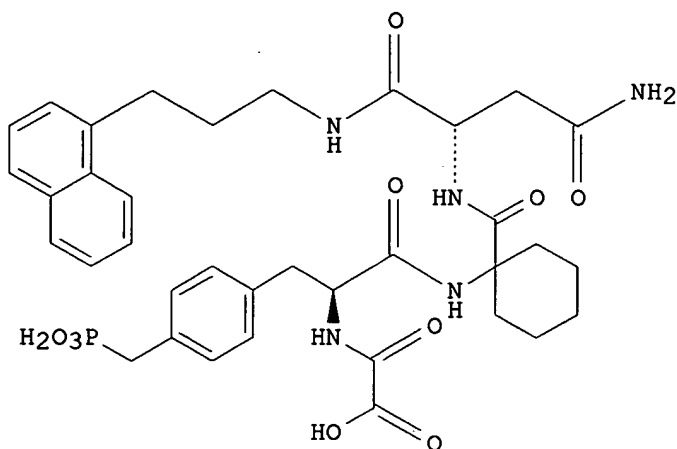
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|----------|
| US 6307090 | B1 | 20011023 | US 1999-236160 | 19990122 |
| PRIORITY APPLN. INFO.: | | | US 1999-236160 | 19990122 |
| OTHER SOURCE(S): | MARPAT | 135:331675 | | |

GI



I

AB The invention relates to acylated peptides X-PTI-(AA)n-Y (n = 0-15; X is oxalyl; PTI is a bivalent radical of phosphotyrosine or of an amino acid selected from the group consisting of phosphonomethylphenylalanine, phosphono(α -fluoro or α,α -difluoro)methylphenylalanine, phosphono(α -hydroxy)methylphenylalanine, O-sulfotyrosine, phosphonophenylalanine, dicarboxymethoxyphenylalanine, aspartic acid, glutamic acid, phosphoserine and phosphothreonine, each of which is present in the DL-, D- or L-form; AA is a bivalent radical of a natural or unnatural amino acid; Y is secondary amino group) or their salts, which are useful for the treatment of diseases that respond to inhibition of the interaction of a protein comprising an SH2 domain and a protein tyrosine kinase or a modified version. Several peptides, e.g, I, were prepared by a multistep procedure and their Grb2 SH2 domain binding affinities are shown graphically.

IT 220193-79-3P

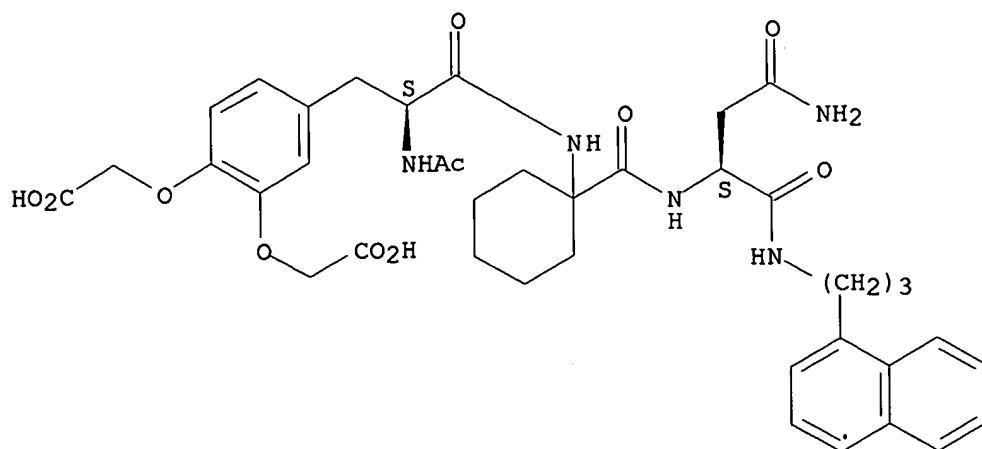
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of acylated oligopeptide derivs. having cell signal inhibiting activity)

RN 220193-79-3 CAPLUS

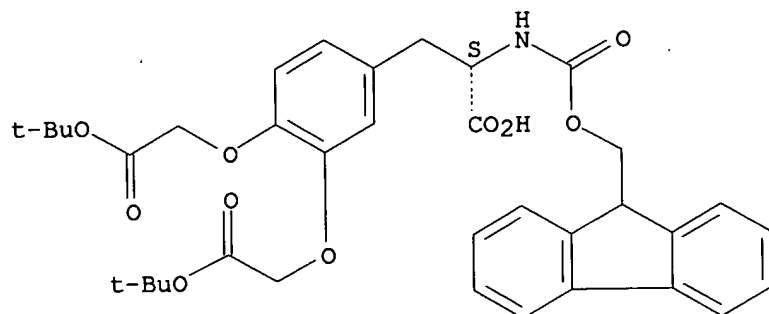
CN L-Aspartamide, N-acetyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



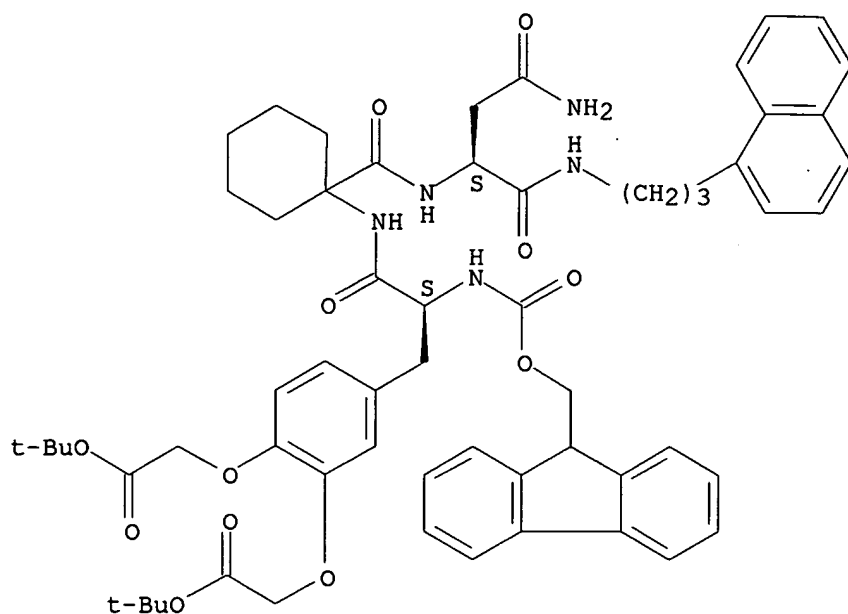
IT 213757-63-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of acylated oligopeptide derivs. having cell signal inhibiting activity)
 RN 213757-63-2 CAPLUS
 CN L-Tyrosine, 3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]-N-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



IT 220193-62-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of acylated oligopeptide derivs. having cell signal inhibiting activity)
 RN 220193-62-4 CAPLUS
 CN L-Aspartamide, 3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]-N-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-phenylalanyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 220193-73-7P

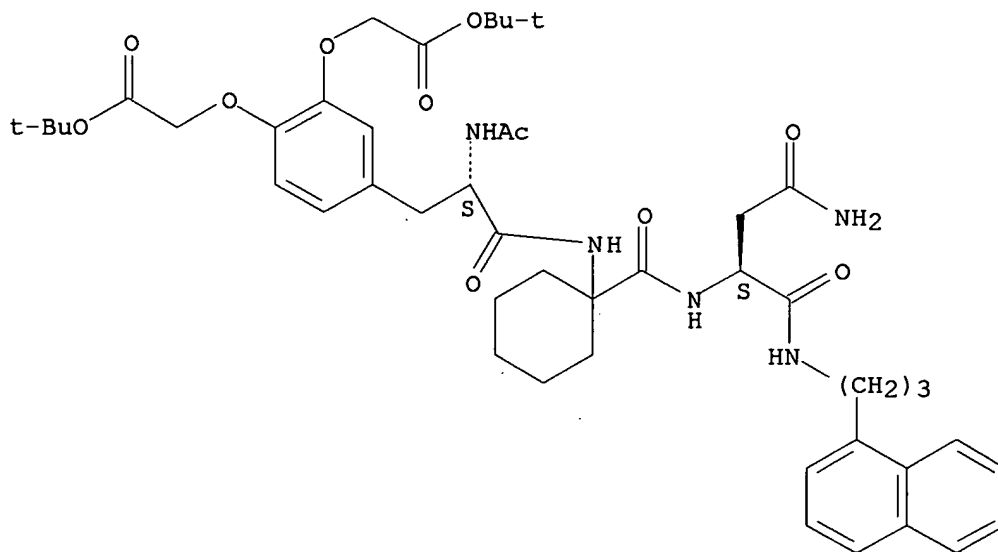
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of acylated oligopeptide derivs. having cell signal inhibiting activity)

RN 220193-73-7 CAPLUS

CN L-Aspartamide, N-acetyl-3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]-L-tyrosyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

113

THERE ARE 113 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L11 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:329848 CAPLUS

DOCUMENT NUMBER: 135:29429

TITLE: Potent blockade of hepatocyte growth factor-stimulated cell motility, matrix invasion and branching morphogenesis by antagonists of Grb2 Src homology 2 domain interactions

AUTHOR(S): Atabey, Nese; Gao, Yang; Yao, Zhu-Jun; Breckenridge, Diane; Soon, Lilian; Soriano, Jesus V.; Burke, Terrence R., Jr.; Bottaro, Donald P.

CORPORATE SOURCE: Laboratories of Cellular and Molecular Biology, Division of Basic Sciences, NCI, National Institutes of Health, Bethesda, MD, 20892-4255, USA

SOURCE: Journal of Biological Chemistry (2001), 276(17), 14308-14314
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hepatocyte growth factor (HGF) stimulates mitogenesis, motogenesis, and morphogenesis in a wide range of cellular targets during development, homeostasis and tissue regeneration. Inappropriate HGF signaling occurs in several human cancers, and the ability of HGF to initiate a program of protease production, cell dissociation, and motility has been shown to promote cellular invasion and is strongly linked to tumor metastasis. Upon HGF binding, several tyrosines within the intracellular domain of its receptor, c-Met, become phosphorylated and mediate the binding of effector proteins, such as Grb2. Grb2 binding through its SH2 domain is thought to link c-Met with downstream mediators of cell proliferation, shape change, and motility. We analyzed the effects of Grb2 SH2 domain antagonists on HGF signaling and observed potent blockade of cell motility, matrix invasion, and branching morphogenesis, with ED50 values of 30 nM or less, but only modest inhibition of mitogenesis. These compds. are 1000-10,000-fold more potent anti-motility agents than any previously characterized Grb2 SH2 domain antagonists. Our results suggest that SH2 domain-mediated c-Met-Grb2 interaction contributes primarily to the mitogenic and morphogenic responses to HGF, and that these compds. may have therapeutic application as anti-metastatic agents for tumors where the HGF signaling pathway is active.

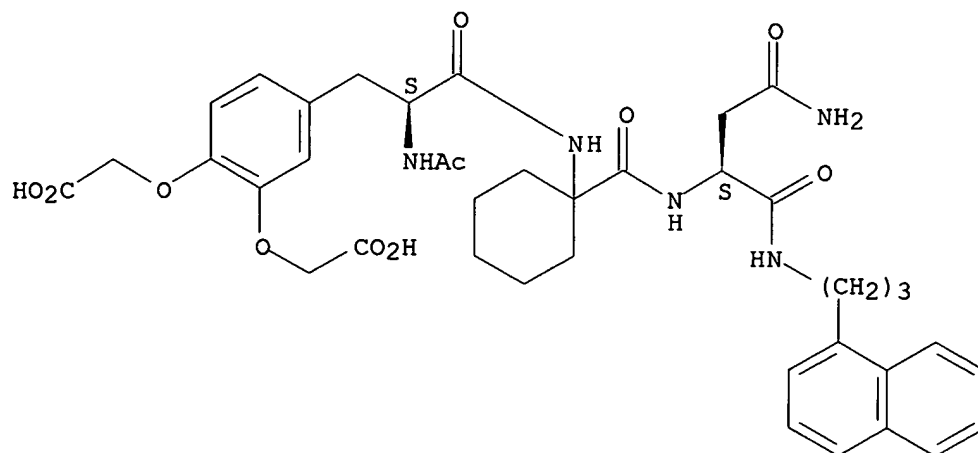
IT 220193-79-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HGF-stimulated cell motility and matrix invasion and branching morphogenesis potent blockade by antagonists of Grb2 Src homol. 2 domain interactions)

RN 220193-79-3 CAPLUS

CN L-Aspartamide, N-acetyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:300535 CAPLUS
 DOCUMENT NUMBER: 134:320849
 TITLE: Peptides for inhibition of cell motility and angiogenesis
 INVENTOR(S): Bottaro, Donald P.; Atabey, Safiye N.; Soriano, Jesus V.; Breckenridge, Diane E.; Yao, Zhu-jun; Gao, Yang
 PATENT ASSIGNEE(S): The Government of the United States of America, Represented by the Secretary, Department of Health and Human Services, USA; Burke, Terrence R., Jr.
 SOURCE: PCT Int. Appl., 60 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|-------------------|----------|-----------------|------------|
| WO 2001028577 | A2 | 20010426 | WO 2000-US41423 | 20001020 |
| WO 2001028577 | A3 | 20011213 | | |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2387922 | AA | 20010426 | CA 2000-2387922 | 20001020 |
| AU 2001029166 | A5 | 20010430 | AU 2001-29166 | 20001020 |
| AU 780697 | B2 | 20050414 | | |
| EP 1223959 | A2 | 20020724 | EP 2000-992431 | 20001020 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| JP 2003512334 | T2 | 20030402 | JP 2001-531405 | 20001020 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | US 1999-160899P | P 19991022 |
| | | | US 2000-221525P | P 20000728 |
| | | | WO 2000-US41423 | W 20001020 |
| OTHER SOURCE(S): | MARPAT 134:320849 | | | |

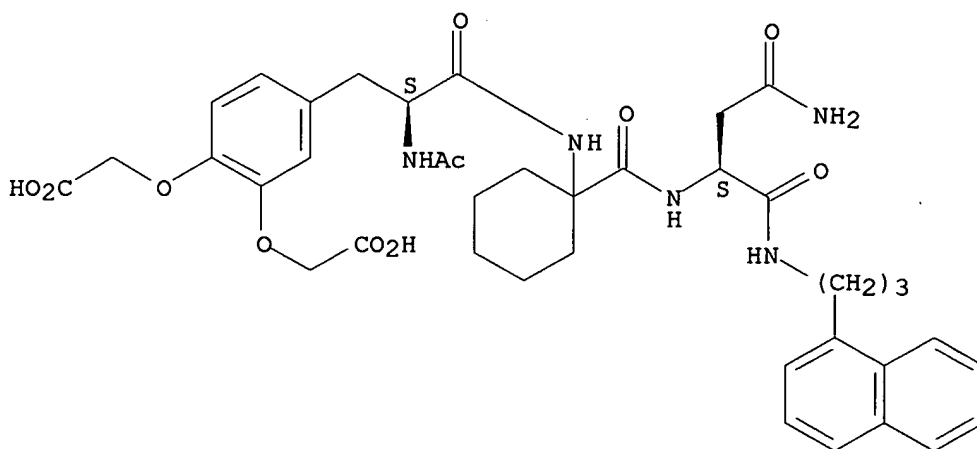
AB Disclosed are methods of inhibiting cell motility, for example, by inhibiting the binding between an intracellular transducer and a receptor protein tyrosine kinase, and more particularly by inhibiting hepatocyte growth factor (HGF)-induced cell motility. The present invention also provides a method of inhibiting angiogenesis. The methods of the present invention employ peptides such as phosphotyrosyl mimetics. The present invention further provides methods of preventing and/or treating diseases, disorders, states, or conditions such as cancer, particularly metastatic cancer comprising administering to a mammal of interest one or more peptides of the present invention. Also disclosed are methods of blocking HGF, VEGF, or bFGF-stimulated migration, cell proliferation, and formation of capillary-like structures. Addition of Grb2 inhibitor peptide 2 (30 nM, 300 nM) resulted in a significant, albeit markedly different, inhibition of proliferation in HUVE and HMVE cells.

IT 220193-79-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (control peptide; peptides for inhibition of cell motility and angiogenesis)

RN 220193-79-3 CAPLUS

CN L-Aspartamide, N-acetyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:894752 CAPLUS

DOCUMENT NUMBER: 135:70625

TITLE: Nonpeptide inhibitors of the pp60c-src (Src) SH2 domain: discovery of a novel phosphotyrosine mimetic

AUTHOR(S): Kawahata, Noriyuki; Yang, Michael; Luke, George; Shakespeare, William; Sundaramoorthi, Raji; Wang, Yihan; Johnson, Daniel; Merry, Taylor; Violette, Shelia; Guan, Wei; Bartlett, Catherine; Smith, Jeremy; Hatada, Marcos; Lu, Xiaode; Eyermann, Charles; Bohacek, Regine; Dalgarno, David; Sawyer, Tomi

CORPORATE SOURCE: ARIAD Pharmaceuticals, Inc., Cambridge, MA, 02139, USA
 SOURCE: Peptides for the New Millennium, Proceedings of the American Peptide Symposium, 16th, Minneapolis, MN, United States, June 26-July 1, 1999 (2000), Meeting Date 1999, 561-562. Editor(s): Fields, Gregg B.; Tam,

Conference

English

AB The observation that osteoporosis is the major phenotype in pp60Src (Src) -/- mice highlights the potential of Src inhibition for the treatment of osteoporosis. Efforts to advance the discovery of a promising new class of anti-resorptive agents through the design, synthesis and incorporation of a novel phosphotyrosine mimetic, are hereby described.

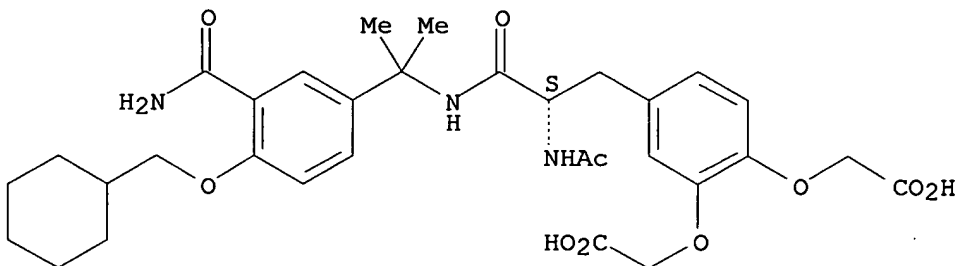
IT 346717-49-5

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(nonpeptide inhibitors of pp60c-src SH2 domain)

RN 346717-49-5 CAPLUS

CN Acetic acid, 2,2'-[[4-[(2S)-2-(acetylamino)-3-[[1-[3-(aminocarbonyl)-4-(cyclohexylmethoxy)phenyl]-1-methylethyl]amino]-3-oxopropyl]-1,2-phenylene]bis(oxy)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:380070 CAPLUS

DOCUMENT NUMBER: 133:187602

TITLE: Examination of novel non-phosphorus-containing phosphotyrosyl mimetics against protein-tyrosine phosphatase-1B and demonstration of differential affinities toward Grb2 SH2 domains

AUTHOR(S): Gao, Yang; Wu, Li; Luo, Juliet H.; Guo, Ribo; Yang, Dajun; Zhang, Zhong-Yin; Burke, Terrence R., Jr.

CORPORATE SOURCE: Laboratory of Medicinal Chemistry, Division of Basic Sciences, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(9), 923-927

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Inhibitory potencies were compared of several mono- and dicarboxy-based pTyr mimetics in Grb2 SH2 domain vs. protein-tyrosine phosphatase-1B (PTP1B) assays. Although in both systems pTyr residues provide critical binding elements, significant differences in the manner of recognition exist between the two. This is reflected in the current study, where marked variation in relative potencies was observed between the two systems. Of particular note was the poor potency of all monocarboxy-based pTyr mimetics against PTP1B when incorporated into a hexapeptide platform. The

recently reported high PTP1B inhibitory potency of similar phenylphosphate mimicking moieties displayed in small mol., non-peptide structures, raises questions on the limitations of using peptides as platforms for pTyr mimetics in the discovery of small mol. inhibitors.

IT 213757-74-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

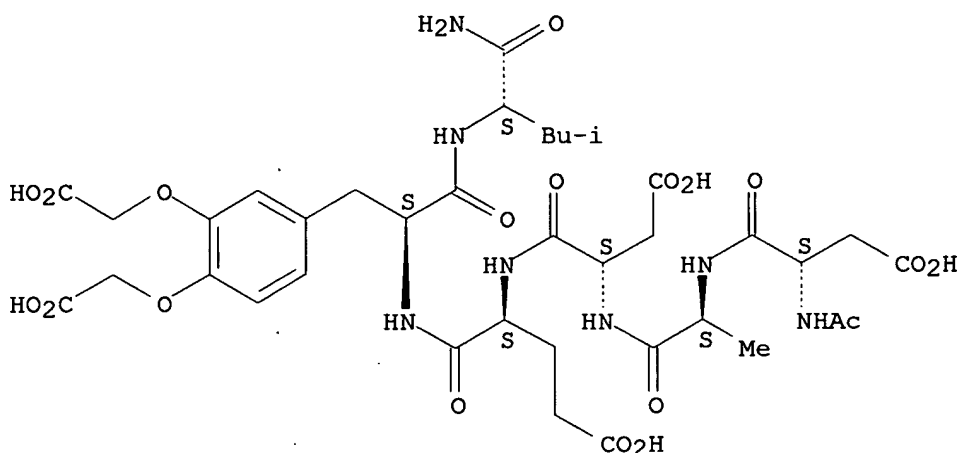
(examination of novel non-phosphorus-containing phosphotyrosyl mimetics against

protein-tyrosine phosphatase-1B and demonstration of differential affinities toward Grb2 SH2 domains)

RN 213757-74-5 CAPLUS

CN L-Leucinamide, N-acetyl-L- α -aspartyl-L-alanyl-L- α -aspartyl-L- α -glutamyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



IT 288854-19-3

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

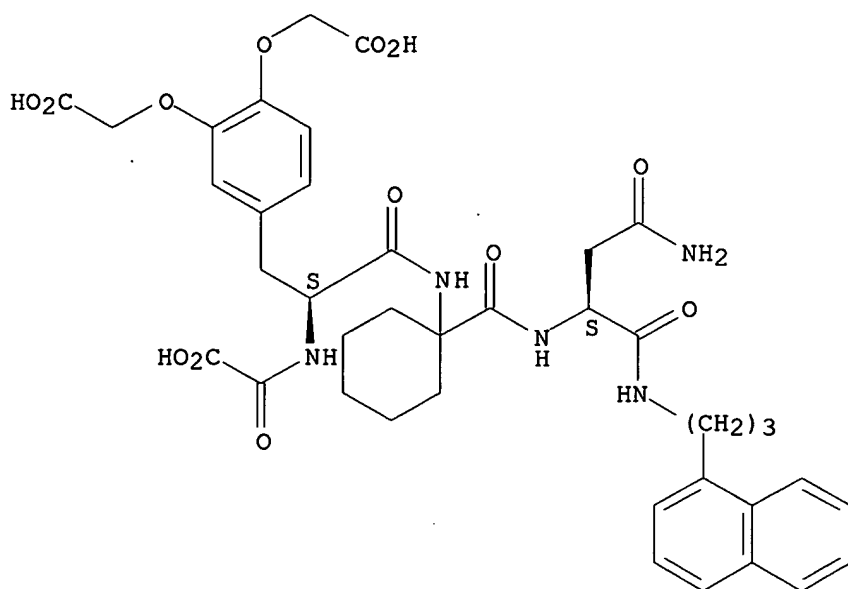
(examination of novel non-phosphorus-containing phosphotyrosyl mimetics against

protein-tyrosine phosphatase-1B and demonstration of differential affinities toward Grb2 SH2 domains)

RN 288854-19-3 CAPLUS

CN L-Aspartamide, N-(carboxycarbonyl)-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

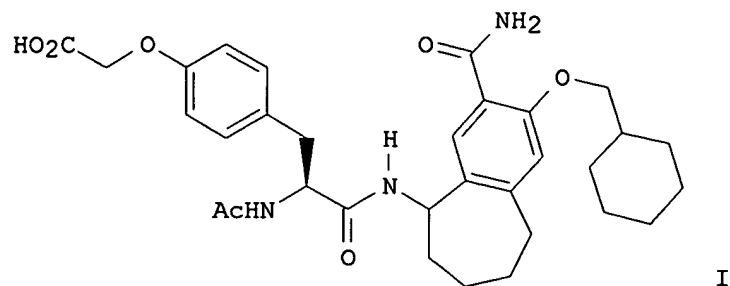


REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:335373 CAPLUS
 DOCUMENT NUMBER: 132:347940
 TITLE: Preparation of N-benzocycloheptenyl-L-tyrosinamides and analogs as intracellular signal transduction inhibitors
 INVENTOR(S): Shakespeare, William C.; Yang, Michael G.; Sundaramoorthi, Rajeswari; Bohacek, Regine; Eyermann, Charles Joseph; Sawyer, Tomi K.
 PATENT ASSIGNEE(S): Ariad Pharmaceuticals, Inc., USA
 SOURCE: PCT Int. Appl., 87 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|-------------|
| WO 2000027802 | A1 | 20000518 | WO 1999-US26986 | 19991112 |
| W: CA, JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2345459 | AA | 20000518 | CA 1999-2345459 | 19991112 |
| EP 1129068 | A1 | 20010905 | EP 1999-962770 | 19991112 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2002529444 | T2 | 20020910 | JP 2000-580982 | 19991112 |
| US 2002137941 | A1 | 20020926 | US 2001-854027 | 20010511 |
| US 6482852 | B2 | 20021119 | | |
| US 2002062031 | A1 | 20020523 | US 2001-990637 | 20011121 |
| US 6573295 | B2 | 20030603 | | |
| PRIORITY APPLN. INFO.: | | | US 1998-108106P | P 19981112 |
| | | | US 1999-438601 | B3 19991112 |
| | | | WO 1999-US26986 | W 19991112 |

OTHER SOURCE(S): MARPAT 132:347940
 GI



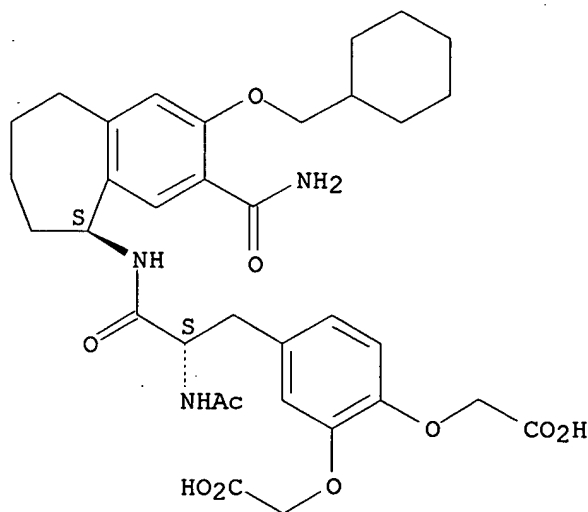
AB R6ZZ1Z2Z3NRR1 [R = H, aliphatic group, (hetero)aryl, etc.; R1 = (un)substituted benzo-fused cycloalkyl or -heterocyclyl; R6 = OH, acyl(oxy), acylalkyl, etc.; Z = (un)substituted phenylene or -naphthylene; Z1 = bond, alkylene, O, (alkyl)imino, etc.; Z2 = bond, alkylene, (alkyl)imino, etc.; Z3 = CO, CH2, SO2, etc.] were prepared as intracellular signal transduction inhibitors (no data). Thus, 6,7,8,9-tetrahydro-5H-benzocyclohepten-2-ol was etherified by bromomethylcyclohexane and the product converted in 9 steps to 9-amino-3-cyclohexylmethoxy-6,7,8,9-tetrahydro-5H-benzocyclohepten-2-carboxamide which was amidated by N-acetyl-L-tyrosine and the product etherified by BrCH2CO2CMe3 to give, after saponification, title compound I.

IT 268741-58-8P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of N-benzocycloheptenyl-L-tyrosinamides and analogs as intracellular signal transduction inhibitors)

RN 268741-58-8 CAPLUS

CN Acetic acid, 2,2'-[[4-[(2S)-2-(acetylamino)-3-[[[(5S)-3-(aminocarbonyl)-2-(cyclohexylmethoxy)-6,7,8,9-tetrahydro-5H-benzocyclohepten-5-yl]amino]-3-oxopropyl]-1,2-phenylene]bis(oxy)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 268741-97-5P

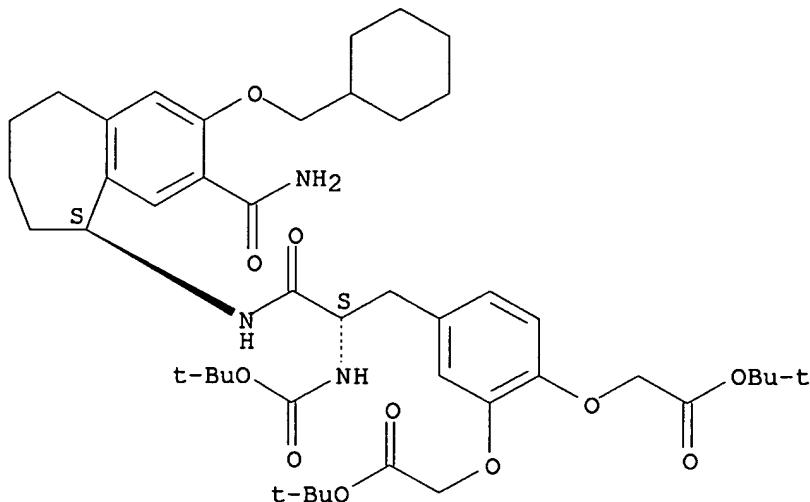
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of N-benzocycloheptenyl-L-tyrosinamides and analogs as intracellular signal transduction inhibitors)

RN 268741-97-5 CAPLUS

CN Acetic acid, 2,2'-[[4-[(2S)-3-[[[(5S)-3-(aminocarbonyl)-2-(cyclohexylmethoxy)-6,7,8,9-tetrahydro-5H-benzocyclohepten-5-yl]amino]-2-[[[(1,1-dimethylethoxy)carbonyl]amino]-3-oxopropyl]-1,2-phenylene]bis(oxy)]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:184222 CAPLUS

DOCUMENT NUMBER: 130:223585

TITLE: Preparation of substituted phenylalanine derivatives as protein tyrosine phosphatase inhibitors

INVENTOR(S): Larsen, Scott D.; May, Paul D.; Bleasdale, John; Liljebris, Charlotta; Schostarez, Heinrich Josef; Barf, Tjeerd

PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA

SOURCE: PCT Int. Appl., 182 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

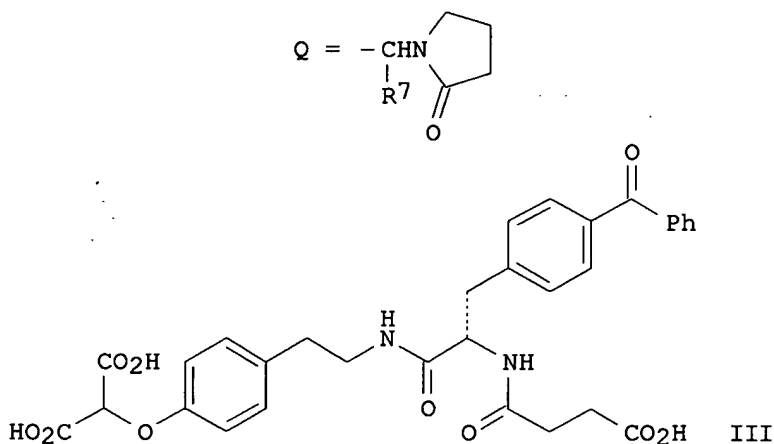
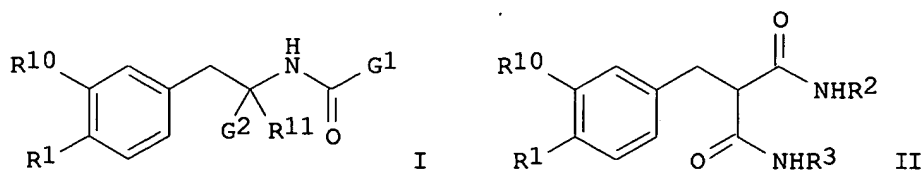
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|--|----------|-----------------|----------|
| WO 9911606 | A2 | 19990311 | WO 1998-US17327 | 19980824 |
| WO 9911606 | A3 | 19990708 | | |
| W: | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |

| | | | |
|---|-------------|-------------------|------------|
| CA 2298601 | AA 19990311 | CA 1998-2298601 | 19980824 |
| AU 9892010 | A1 19990322 | AU 1998-92010 | 19980824 |
| AU 749132 | B2 20020620 | | |
| EP 1019364 | A2 20000719 | EP 1998-944476 | 19980824 |
| EP 1019364 | B1 20040609 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| JP 2001514245 | T2 20010911 | JP 2000-508647 | 19980824 |
| AT 268750 | E 20040615 | AT 1998-944476 | 19980824 |
| PRIORITY APPLN. INFO.: | | US 1997-57730P | P 19970828 |
| | | WO 1998-US17327 | W 19980824 |
| OTHER SOURCE(S): | | MARPAT 130:223585 | |
| GI | | | |



AB The present invention comprises title compds. I and II [G1 = R2, NR8R4; G2 = H, CONHR3, CH2OH, CH:CHR3; R1 = OSO3H, OCH(CO2R5)2, OCH2CO2R5, OCH(CO2R5)CH2CO2R5, O(CO2R5):CHCO2R5, CH2CH(CO2R5)2, CH:C(CO2R5)2, OCH2CONHOH, N(CH2CO2R5)2, OCHFCO2R5; R2 = C1-10 alkyl, C3-8 cycloalkyl, C0-6 alkylphenyl each substituted with 0-2 CO2R5 groups or 0-1 CONH2 groups, CHR7NHXR6, group Q; R3 = (un)substituted C1-12 alkyl, C1-4 alkyl-C3-6 cycloalkyl, C2-12 alkenyl, C3-12 alkynyl, (un)substituted C0-10 alkyl(G3)n, CH(CONH2)-C1-12 alkyl; R4 = H, C1-18 alkyl, alkenyl, C0-6 alkyl-G3; R5 = H, C1-10 alkyl, C1-5 alkylphenyl; R6 = C1-10 alkyl, substituted C1-6 alkyl; R7 = H, substituted C1-6 alkyl; R8 = C0-6 alkyl-G3, CHR7CO2R5, CHR7CH2CO2R5, CHR7CONHCH2COR5; G3 = (un)substituted Ph, naphthyl, heterocyclyl; R10 = H, CO2R5, CONHOH, 5-tetrazolyl, F, OCH2CO2R5; R11 = H, Me; X = CO, SO2, CO2; n = 0-3; with provisos] and pharmaceutically acceptable salts thereof, as small mol. weight, non-peptidic inhibitors of protein tyrosine phosphatase 1 (PTP1) which are useful for the treatment and/or prevention of non-insulin dependent diabetes mellitus (NIDDM). Thus, O-alkylation of N-tert-butoxycarbonyltyramine with di-Et

chloromalonate, followed by acidic deprotection, amidation with 4-benzoyl-N-tert-butoxycarbonyl-L-phenylalanine, acidic deprotection, and amidation with succinic anhydride, gave desired title compound III (PNU 176073). III showed 60% inhibition of protein tyrosine phosphatase 1B at a concentration of 10 μ M.

IT 221076-92-2P

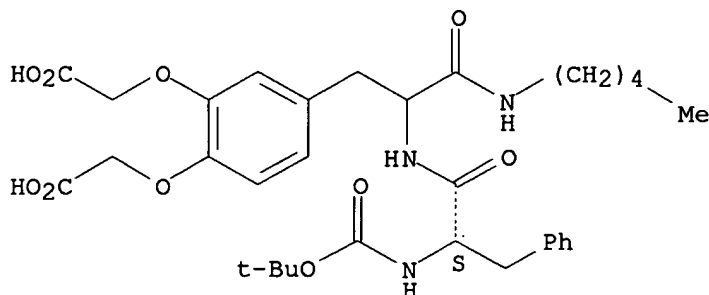
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

RN 221076-92-2 CAPLUS

CN Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-(carboxymethoxy)-O-(carboxymethyl)-N-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 221077-95-8P 221077-97-0P 221077-98-1P

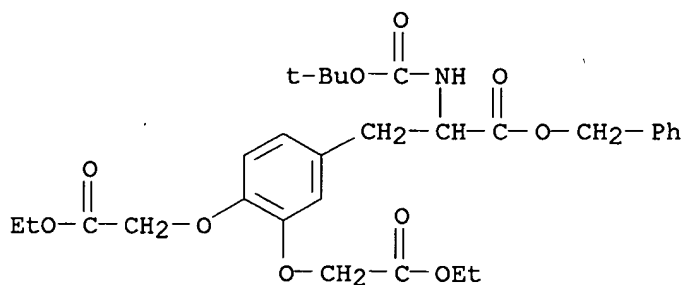
221077-99-2P 221078-02-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

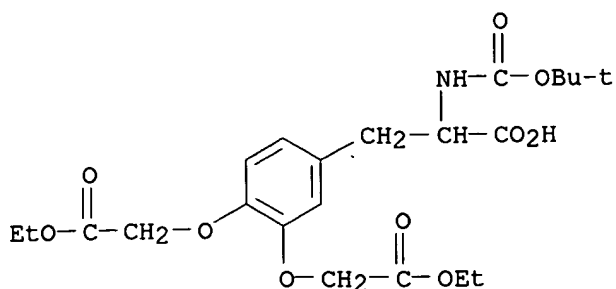
RN 221077-95-8 CAPLUS

CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-3-(2-ethoxy-2-oxoethoxy)-O-(2-ethoxy-2-oxoethyl)-, phenylmethyl ester (9CI) (CA INDEX NAME)

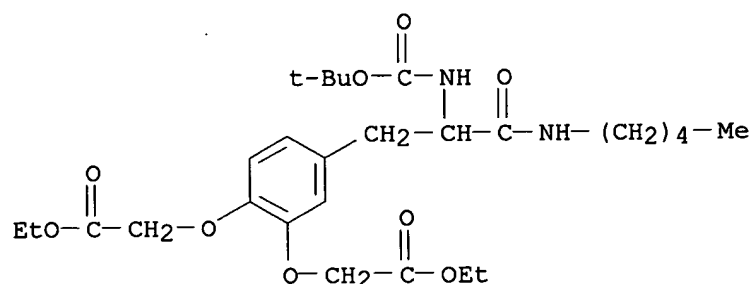


RN 221077-97-0 CAPLUS

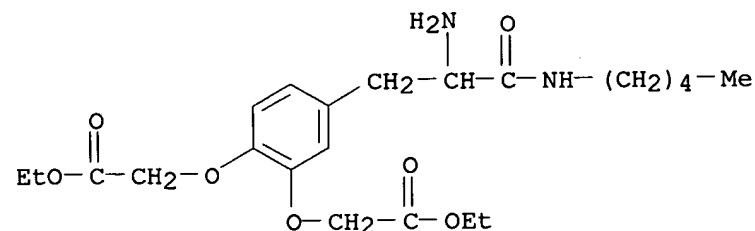
CN Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-3-(2-ethoxy-2-oxoethoxy)-O-(2-ethoxy-2-oxoethyl)- (9CI) (CA INDEX NAME)



RN 221077-98-1 CAPLUS
 CN Acetic acid, 2,2'-[[4-[2-[(1,1-dimethylethoxy)carbonyl]amino]-3-oxo-3-(pentylamino)propyl]-1,2-phenylene]bis(oxy)]bis-, diethyl ester (9CI) (CA INDEX NAME)

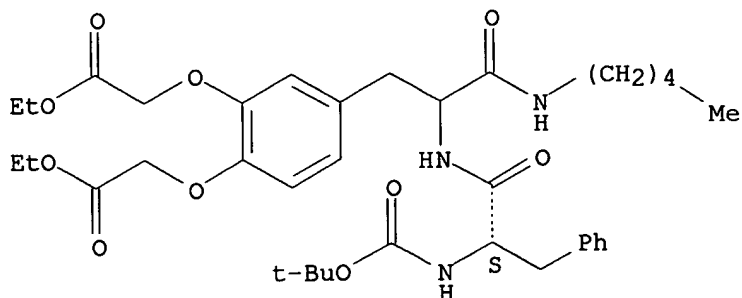


RN 221077-99-2 CAPLUS
 CN Acetic acid, 2,2'-[[4-[2-amino-3-oxo-3-(pentylamino)propyl]-1,2-phenylene]bis(oxy)]bis-, diethyl ester (9CI) (CA INDEX NAME)



RN 221078-02-0 CAPLUS
 CN Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-(2-ethoxy-2-oxoethoxy)-O-(2-ethoxy-2-oxoethyl)-N-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:768650 CAPLUS
 DOCUMENT NUMBER: 130:153950
 TITLE: Potent Inhibition of Grb2 SH2 Domain Binding by
 Non-Phosphate-Containing Ligands
 AUTHOR(S): Yao, Zhu-Jun; King, C. Richter; Cao, Tin; Kelley,
 James; Milne, George W. A.; Voigt, Johannes H.; Burke,
 Terrence R., Jr.
 CORPORATE SOURCE: Laboratory of Medicinal Chemistry Division of Basic
 Sciences National Cancer Institute, National
 Institutes of Health, Bethesda, MD, 20892, USA
 SOURCE: Journal of Medicinal Chemistry (1999), 42(1), 25-35
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Development of Grb2 Src homol. 2 (SH2) domain binding inhibitors has
 important implications for treatment of a variety of diseases, including
 several cancers. In cellular studies, inhibitors of Grb2 SH2 domain
 binding have to date been large, highly charged peptides which relied on
 special transport devices for cell membrane penetration. Work presented
 in the current study examines a variety of phosphotyrosine (pTyr) mimetics
 in the context of a high-affinity Grb2 binding platform. Among the
 analogs studied are new nonphosphorus-containing pTyr mimetics I (R = Ac,
 COCO₂H) which, when incorporated into tripeptide structures II, are able
 to inhibit Grb2 SH2 domain binding with affinities among the best yet
 reported for non-phosphorus-containing SH2 domain inhibitors (IC₅₀ values of
 6.7 and 1.3 μ M, resp.). The present study has also demonstrated the
 usefulness of the α -oxalyl group as an auxiliary which enhances the
 binding potency of both phosphorus- and non-phosphorus-containing pTyr
 mimetics. When combined with the (phosphonomethyl)phenylalanine (Pmp)
 residue to give analogs such as III, potent inhibition of Grb2 SH2 domain
 binding can be achieved both in extracellular assays using isolated Grb2
 SH2 domain protein and in intracellular systems measuring the association of
 endogenous Grb2 with its cognate p185erbB-2 ligand. These latter effects
 can be achieved at micromolar to submicromolar concns. without prodrug
 derivatization. The oxalyl-containing pTyr mimetics presented in this study
 should be of general usefulness for the development of other Grb2 SH2
 domain antagonists, independent of the β -bend-mimicking platform
 utilized for their display.

IT 220193-79-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation)

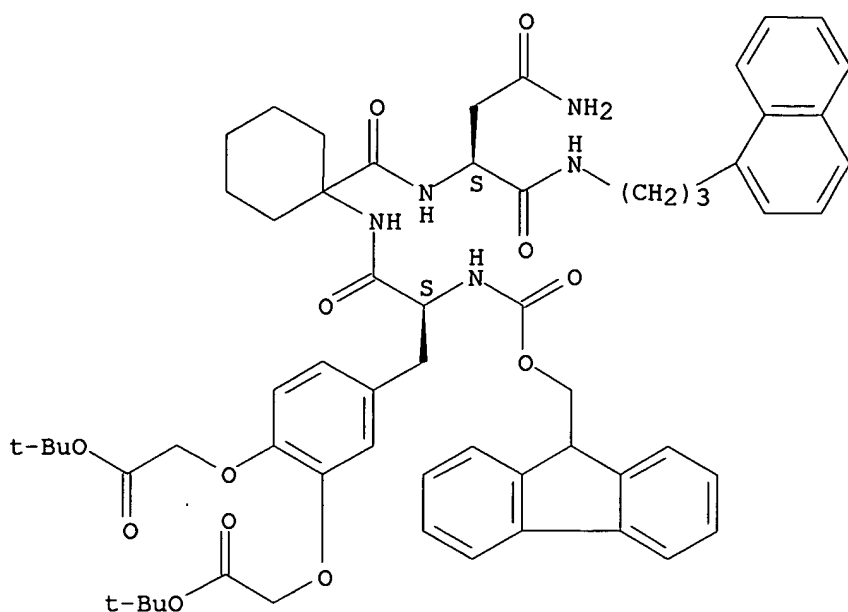
(preparation of nonphosphate-containing tyrosine ligands as potent
 inhibitors of
 Grb2 SH2 domain binding)

RN 220193-79-3 CAPLUS

CN L-Aspartamide, N-acetyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl-1-
 aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.

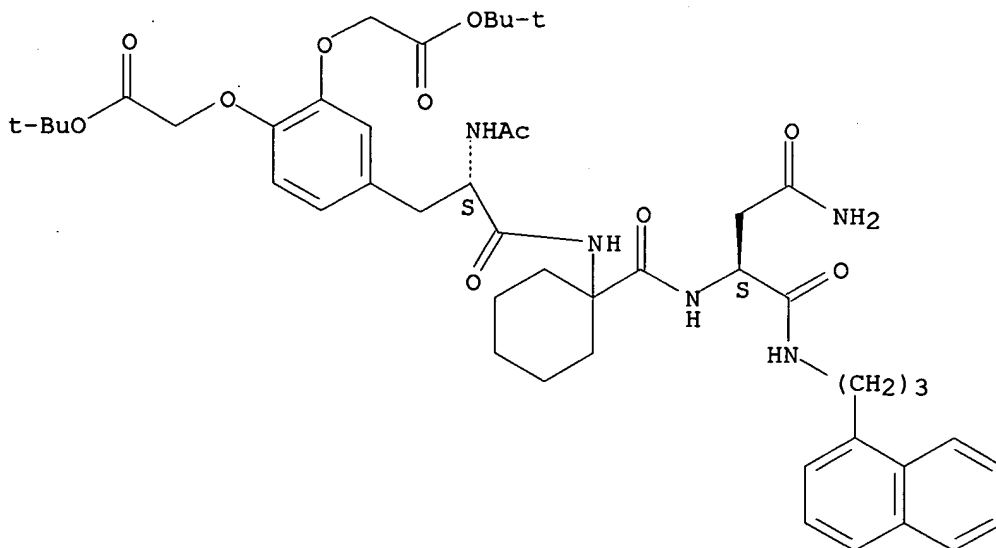
Absolute stereochemistry.



RN 220193-73-7 CAPLUS

CN L-Aspartamide, N-acetyl-3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]-L-tyrosyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

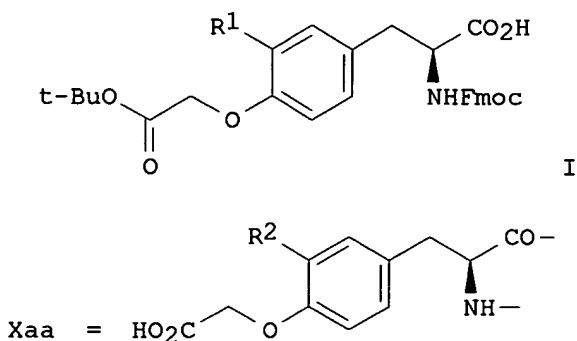
ACCESSION NUMBER: 1998:517177 CAPLUS

DOCUMENT NUMBER: 129:276284

TITLE: Enantioselective synthesis of nonphosphorus-containing phosphotyrosyl mimetics and their use in the preparation of tyrosine phosphatase inhibitory peptides

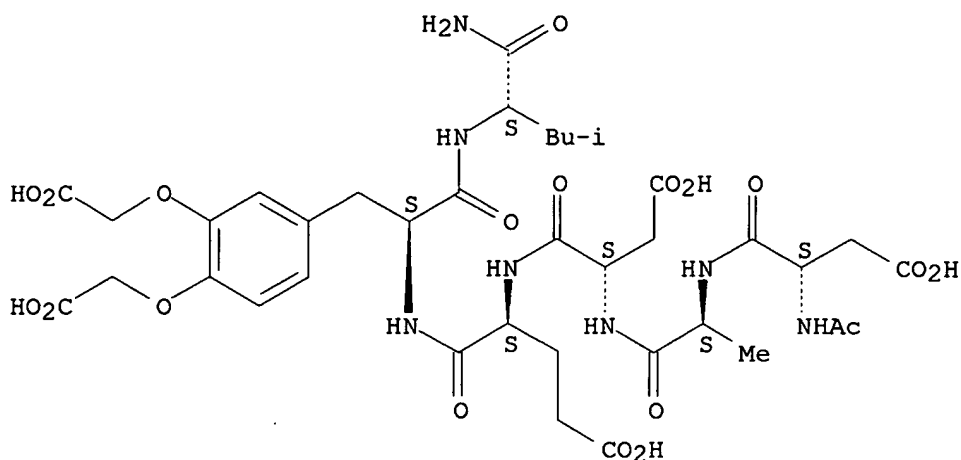
AUTHOR(S): Burke, Terrence R., Jr.; Yao, Zhu-Jun; Zhao, He;

Milne, George W. A.; Wu, Li; Zhang, Zhong-Yin; Voigt, Johannes H.
 CORPORATE SOURCE: Lab. Med. Chem., Div. Basic Sci., Natl. Cancer Inst.,
 Natl. Inst. Health, Bethesda, MD, 20892, USA
 SOURCE: Tetrahedron (1998), 54(34), 9981-9994
 CODEN: TETRAB; ISSN: 0040-4020
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 129:276284
 GI



- AB Three new L-amino acid analogs I [R¹ = H, Me₃CO₂CCH₂O, Me₃Si(CH₂)₂O₂C; Fmoc = 9-fluorenylmethoxycarbonyl] have been prepared in protected form suitable for incorporation into peptides by solid-phase synthesis using Fmoc protocols. These agents represent non-phosphorus-containing phosphotyrosyl (pTyr) mimetics, which utilize carboxylic groups to provide functionality normally afforded by the pTyr phosphate group. To demonstrate the utility of these analogs, the protein-tyrosine phosphatase-directed peptides Ac-Asp-Ala-Asp-Glu-Xaa-Leu-NH₂ (II) were prepared, where Xaa (R² = H, HO₂CCH₂O, HO₂C) is a pTyr mimetic. A K_i value of 3.6 μM was obtained against PTP1 for peptide II (R² = HO₂C), which equals the K_m of the parent pTyr containing peptide. Besides tyrosine phosphatases, these analogs may be useful in a number of contexts, including SH2 domain and phosphotyrosine binding domain systems.
- IT 213757-74-5P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of nonphosphorus-containing phosphotyrosyl mimetics for use in the preparation of tyrosine phosphatase inhibitory peptides)
- RN 213757-74-5 CAPLUS
- CN L-Leucinamide, N-acetyl-L-α-aspartyl-L-alanyl-L-α-aspartyl-L-α-glutamyl-3-(carboxymethoxy)-O-(carboxymethyl)-L-tyrosyl- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



IT 213757-61-0P 213757-62-1P 213757-63-2P

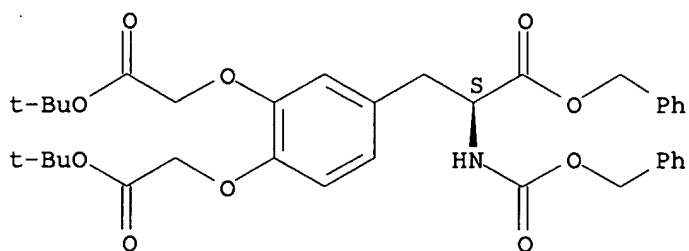
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of nonphosphorus-containing phosphotyrosyl mimetics for use in the preparation of tyrosine phosphatase inhibitory peptides)

RN 213757-61-0 CAPLUS

CN L-Tyrosine, 3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]-N-[(phenylmethoxy)carbonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

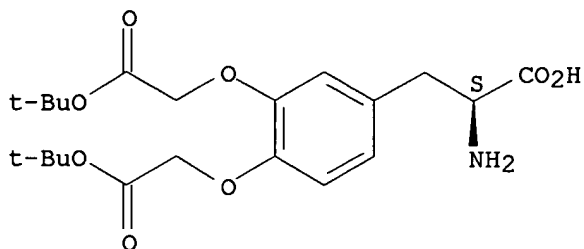
Absolute stereochemistry.



RN 213757-62-1 CAPLUS

CN L-Tyrosine, 3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]- (9CI) (CA INDEX NAME)

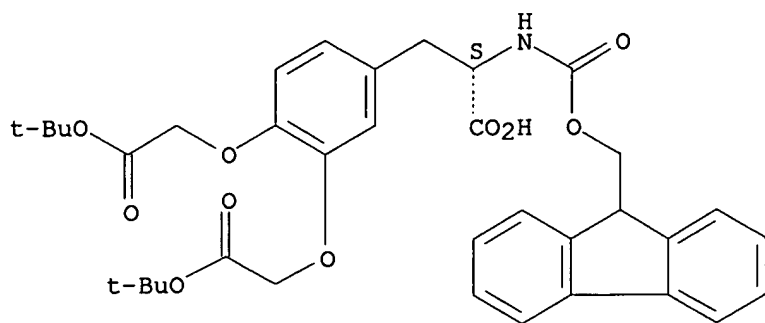
Absolute stereochemistry.



RN 213757-63-2 CAPLUS

CN L-Tyrosine, 3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-O-[2-(1,1-dimethylethoxy)-2-oxoethyl]-N-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

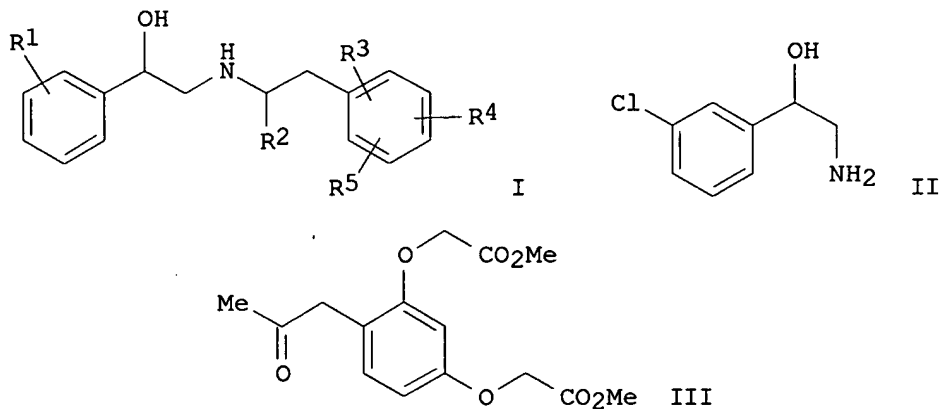
Absolute stereochemistry.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1997:394205 CAPLUS
 DOCUMENT NUMBER: 127:33994
 TITLE: Preparation of phenylethanol amine derivatives for treatment of diabetes, high blood glucose, and obesity diseases
 INVENTOR(S): Inomata, Kohei; Oshida, Norio; Kubota, Nobutoshi; Iwata, Naohito; Hamada, Tamiko; Takahashi, Toshihiro
 PATENT ASSIGNEE(S): Nisshin Flour Milling Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------------------|----------|-----------------|------------|
| JP 09118655 | A2 | 19970506 | JP 1996-209379 | 19960722 |
| PRIORITY APPLN. INFO.: | | | JP 1995-232093 | A 19950818 |
| OTHER SOURCE(S): | MARPAT 127:33994 | | | |
| GI | | | | |



AB The title compds. (I; R1 = H, halo; R2, R6 = H, C1-4 alkyl; R3-R5 = H, OCH2CO2R6) are prepared I are useful for prevention and treatment of

diabetes, high blood glucose, and obesity diseases and as texture improvement agents for flesh animals. Thus, benzyl alc. derivative (II) was refluxed with benzene derivative (III) in C6H6 and then hydrogenated over PtO2 to give 52% I(R1 = R4 = H, R2 = Me, R3 = 2-OCH2CO2Me, R5 = 4-OCH2CO2Me) (IV). IV showed fat disassembly activity (β 3) EC50 of 9.0×10^{-8} M when tested on rats. A tablet and granule formulation containing IV were prepared

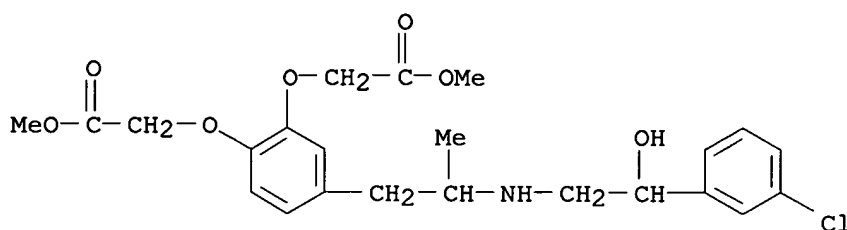
IT 190372-40-8P 190372-41-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of phenylethanol amine derivs. for treatment of diabetes, high blood glucose, and obesity diseases)

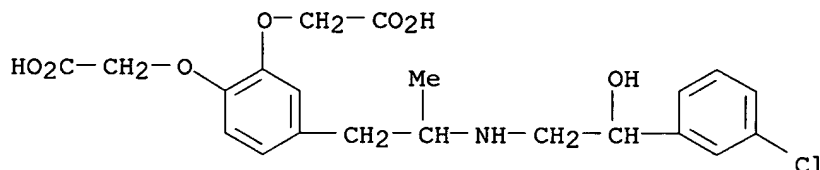
RN 190372-40-8 CAPLUS

CN Acetic acid, 2,2'-[[4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-1,2-phenylene]bis(oxy)]bis-, dimethyl ester (9CI) (CA INDEX NAME)



RN 190372-41-9 CAPLUS

CN Acetic acid, 2,2'-[[4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-1,2-phenylene]bis(oxy)]bis-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L11 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:663105 CAPLUS

DOCUMENT NUMBER: 123:74912

TITLE: Preparation of phenylethanolamine derivatives and antiobesity agents and antidiabetic agents containing them

INVENTOR(S): Okuyama, Akihiko; Tanaka, Shimizu; Nagahara, Michiko; Uchida, Katsuhiko; Muraoka, Yuriko; Watanuki, Mitsuru; Shimada, Shuji

PATENT ASSIGNEE(S): Kaken Pharma Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

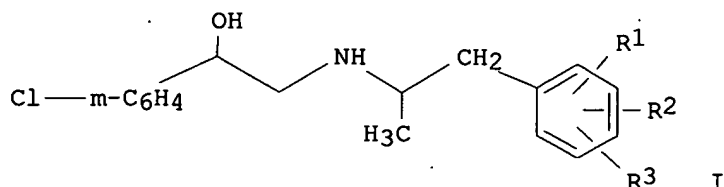
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|-----------|-----------------|----------|
| JP 07112958 | A2 | 19950502 | JP 1993-280041 | 19931013 |
| PRIORITY APPLN. INFO.: | | | JP 1993-280041 | 19931013 |
| OTHER SOURCE(S): | MARPAT | 123:74912 | | |

GI



AB The title derivs. I (R1-2 = H, halo, C1-4 alkyl, C1-4 alkoxy; R3 = OCR4R5CO2R6; R4 = H, C1-13 alkyl, aryl; R5-6 = H, C1-4 alkyl) or their pharmaceutically acceptable salts and antiobesity agents and antidiabetic agents containing I or their salts are claimed. 3-ClC6H4CH(OH)CH2NH2 was treated with 1-[4-(1-ethoxycarbonylethoxy)phenyl]propan-2-one in benzene under reflux for 4 h. After removal of benzene the reaction product in MeOH was treated with gradual addition of NaBH4 at 0° and the reaction mixture was further stirred at 0° for 30 min to give 67.7% I (R1 = R2 = H, R3 = OCHMeCO2Et) (II). ED50 value of β3-agonistic action of II, i.e. promotion of lipolysis by adipose cell, was 10 nM, vs. 1.7 nM of BRL-35135. ED50 values of β1- and β2-agonistic actions of II were 828 and 2.2 nM. I (R1 = H, R2 = 3-Me, R3 = 4-OCH2CO2Me) showed antiobesity effect on Na glutamate-induced obese mice.

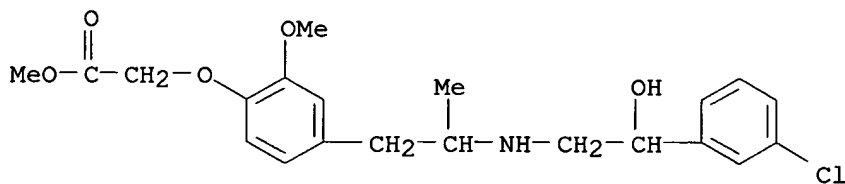
IT 164984-13-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(N-(phenylmethylethyl)hydroxyphenylethanamines with β3-agonistic action and antiobesity and antidiabetic agents containing them)

RN 164984-13-8 CAPLUS

CN Acetic acid, [4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-2-methoxyphenoxy]-, methyl ester (9CI) (CA INDEX NAME)



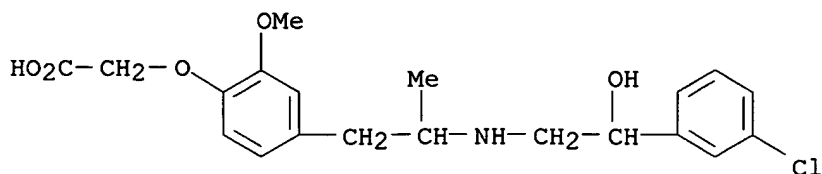
IT 164984-14-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(N-(phenylmethylethyl)hydroxyphenylethanamines with β3-agonistic action and antiobesity and antidiabetic agents containing them)

RN 164984-14-9 CAPLUS

CN Acetic acid, [4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-2-methoxyphenoxy]- (9CI) (CA INDEX NAME)



L11 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:422655 CAPLUS

DOCUMENT NUMBER: 109:22655

TITLE: Preparation of (arylsulfonylaminoalkyl)phenoxyacetic acid derivatives useful for treating or preventing thrombotic diseases or embolism

INVENTOR(S): Iwakuma, Takeo; Kawaguchi, Takayuki; Yamashita, Toyoharu; Sasaki, Yasuhiko; Shimazaki, Tamotu

PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 44 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

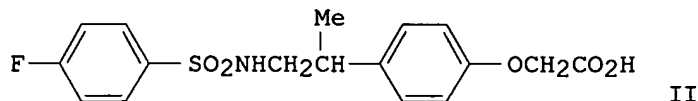
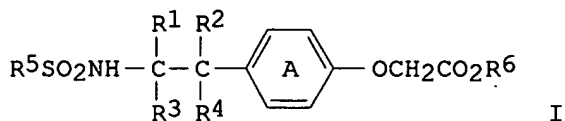
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| EP 255728 | A2 | 19880210 | EP 1987-111402 | 19870806 |
| EP 255728 | A3 | 19890510 | | |
| EP 255728 | B1 | 19911127 | | |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| IL 83230 | A1 | 19920621 | IL 1987-83230 | 19870717 |
| CA 1277675 | A1 | 19901211 | CA 1987-543552 | 19870731 |
| JP 64000062 | A2 | 19890105 | JP 1987-194811 | 19870804 |
| JP 04057669 | B4 | 19920914 | | |
| DK 8704089 | A | 19880207 | DK 1987-4089 | 19870805 |
| NO 8703272 | A | 19880208 | NO 1987-3272 | 19870805 |
| NO 166938 | B | 19910610 | | |
| NO 166938 | C | 19910918 | | |
| AU 8776596 | A1 | 19880211 | AU 1987-76596 | 19870805 |
| AU 597707 | B2 | 19900607 | | |
| ZA 8705784 | A | 19880427 | ZA 1987-5784 | 19870805 |
| HU 45230 | A2 | 19880628 | HU 1987-3579 | 19870805 |
| SU 1614760 | A3 | 19901215 | SU 1987-4203067 | 19870805 |
| FI 8703413 | A | 19880207 | FI 1987-3413 | 19870806 |
| FI 87769 | B | 19921113 | | |
| FI 87769 | C | 19930225 | | |
| CN 87105501 | A | 19880217 | CN 1987-105501 | 19870806 |
| CN 1011780 | B | 19910227 | | |
| AT 69807 | E | 19911215 | AT 1987-111402 | 19870806 |
| ES 2038630 | T3 | 19930801 | ES 1987-111402 | 19870806 |
| AT 8702623 | A | 19921115 | AT 1987-2623 | 19871008 |
| AT 396235 | B | 19930726 | | |
| US 4866196 | A | 19890912 | US 1988-141403 | 19880104 |
| SU 1748643 | A3 | 19920715 | SU 1988-4356064 | 19880712 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | JP 1986-184693 | A 19860806 |
| | | | JP 1987-26858 | A 19870206 |
| | | | US 1987-80676 | A1 19870731 |
| | | | EP 1987-111402 | A 19870806 |

OTHER SOURCE(S): CASREACT 109:22655; MARPAT 109:22655

GI



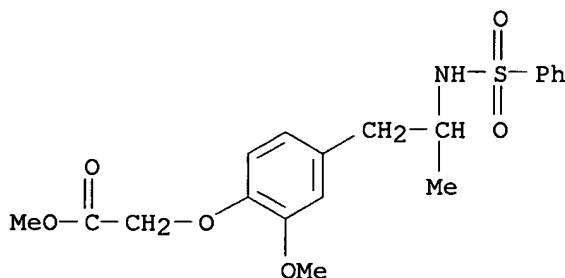
AB The title compds. [I; ring A may have 1-2 substituents selected from alkyl, alkoxy, halo; 1 or 2 of R¹-R⁴ = alkyl, others = H; R⁵ = Ph (un)substituted by 1-3 groups selected from alkyl, halo, alkoxy, trihalomethyl, NO₂; R⁶ = H, protecting group [e.g., alkyl, (un)substituted phenylalkyl]] are prepared for use in the treatment or prophylaxis of thrombotic diseases or embolism. Acylation of (±)-[4-(2-amino-1-methylethyl)phenoxy]acetic acid by 4-FC₆H₄SO₂Cl in aqueous K₂CO₃ at 80° gave [(fluorophenyl)sulfonylaminoethyl]phenoxyacetic acid (±)-II, as its Na salt, in 60% yield. The chloro analog of (±)-II had an IC₅₀ of 0.5 µg/mL for inhibiting collagen-induced platelet aggregation in vitro, vs. 2 µg/mL for 4-(PhSO₂NHCH₂CH₂)C₆H₄OCH₂CO₂H.

IT 114963-26-7P 114986-64-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as antithrombotic)

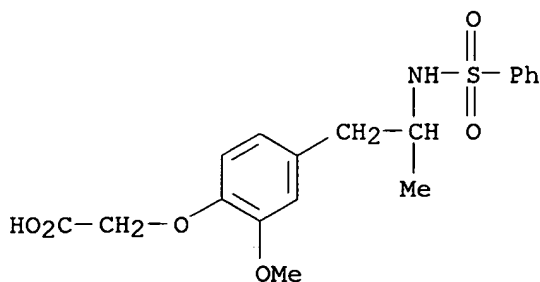
RN 114963-26-7 CAPLUS

CN Acetic acid, [2-methoxy-4-[2-[(phenylsulfonyl)amino]propyl]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 114986-64-0 CAPLUS

CN Acetic acid, [2-methoxy-4-[2-[(phenylsulfonyl)amino]propyl]phenoxy]- (9CI)
(CA INDEX NAME)



ACCESSION NUMBER: 1972:462312 CAPLUS
 DOCUMENT NUMBER: 77:62312
 TITLE: L-Dopa derivatives
 INVENTOR(S): Kaiser, Ado; Koch, Wolfgang; Scheer, Marcel; Woelcke, Uwe
 PATENT ASSIGNEE(S): Hoffmann-La Roche, F., und Co., A.-G.
 SOURCE: Ger. Offen., 61 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

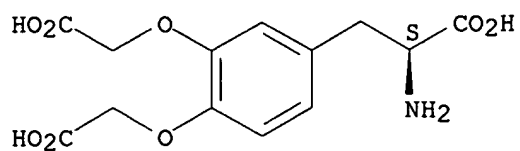
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| DE 2153800 | A | 19720504 | DE 1971-2153800 | 19711028 |
| CH 562199 | A | 19750530 | CH 1970-16048 | 19701030 |
| ZA 7105981 | A | 19720628 | ZA 1971-5981 | 19710907 |
| AU 7133318 | A1 | 19730315 | AU 1971-33318 | 19710909 |
| IL 37704 | A1 | 19751015 | IL 1971-37704 | 19710913 |
| FR 2111942 | A5 | 19720609 | FR 1971-38773 | 19711028 |
| FR 2111942 | B1 | 19750801 | | |
| BE 774678 | A1 | 19720502 | BE 1971-109925 | 19711029 |
| NL 7114948 | A | 19720503 | NL 1971-14948 | 19711029 |
| GB 1347375 | A | 19740220 | GB 1971-50335 | 19711029 |
| CA 996131 | A1 | 19760831 | CA 1971-126428 | 19711029 |
| SE 7506820 | A | 19750613 | SE 1975-6820 | 19750613 |
| SE 7506821 | A | 19750613 | SE 1975-6821 | 19750613 |
| PRIORITY APPLN. INFO.: | | | CH 1970-16048 | A 19701030 |

AB About 50 L-3,4-(R2O)2C6H3CH2(NHR1)CO2R [I, R = H, Me, Et, Bu, PhCH2, allyl, MeCH:CHCH2, R1 = tert-BuO2C, PhCH2O2C, Ac, o-O2NC6H4S, R2 = H, allyl, MeCH:CHCH2, EtO2C, EtO2CCH2, HO2CCH2, Bz, MeSO2, Me2NCO, CH2:CHCO, CH.tplbond.-CCH2, Me(CH2)nCO (n = 0-6)] and their HCl salts or oxalates, hypotensive, antipyretic, or antiparkinsonism agents, were prepared by acetylation or esterification of I (R = R2 = H), reaction of I (R2 = H) with R2Cl or R2Br, cleavage of R1 by hydrolysis with HCl or hydrogenation, resp., and cleavage of R by hydrolysis with NaOH or HCl. Thus, I (R = R2 = H, R1 = tert-BuO2C = Q) was treated with CH2N2 in Et2O to give I (R = Me, R1 = Q, R2 = H). This was refluxed for 14 hr with CH2:-CHCH2Br in Me2CO in the presence of K2CO3 under argon to give I (R = Me, R1 = Q, R2 = allyl) (II). II was saponified with aqueous NaOH in dioxane for 14 hr at room temperature to give I (R = H, R1 = Q, R2 = allyl). This was treated with HCl in ACOH to give I.HCl (R = R1 = H, R2 = allyl). I (R = R1 = H) were pharmaceuticals.

IT 37168-64-2P 37169-48-5P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 37168-64-2 CAPLUS
 CN L-Tyrosine, 3-(carboxymethoxy)-O-(carboxymethyl)-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 37169-48-5 CAPLUS

CN L-Tyrosine, N-acetyl-3-(2-ethoxy-2-oxoethyl)-O-(2-ethoxy-2-oxoethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

